**R315. Environmental Quality, Solid and Hazardous Waste.**
**R315-7. Interim Status Requirements for Hazardous Waste Treatment, Storage, and Disposal Facilities.**
**R315-7-8. General Interim Status Requirements.**

8.1 PURPOSE, SCOPE, APPLICABILITY

(a) The purpose of R315-7 is to establish minimum State of Utah standards that define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(b) Except as provided in R315-7-30, which incorporates by reference 40 CFR 265.1080(b), the standards of R315-7 and of R315-8-21, which incorporates by reference 40 CFR 264.552 through 264.554, apply to owners and operators of facilities that treat, store, or dispose of hazardous waste who have fully complied with the requirements of interim status under State or Federal requirements and R315-3-2.1 until either a permit is issued under R315-3 or until applicable R315-7 closure and post-closure responsibilities are fulfilled, and to those owners and operators of facilities in existence on November 19, 1980, who have failed to provide timely notification as required by Section 3010(a) of RCRA or failed to file part A of the permit application as required by R315-3-2.1(d) and (f). These standards apply to all treatment, storage, and disposal of hazardous waste at these facilities after the effective date of these rules, except as specifically provided otherwise in R315-7 or R315-2. R315-7 also applies to the treatment or storage of hazardous waste before it is loaded onto an ocean vessel for incineration or disposal at sea, as provided in R315-7-8.1(a).

(c) The requirements of R315-7 do not apply to the following:

(1) The owner or operator of a POTW with respect to the treatment or storage of hazardous wastes which are delivered to the POTW;

(2) The owner or operator of a facility approved by the State of Utah to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under R315-7 by R315-2-5;

(3) The owner or operator of a facility managing recyclable materials described in 40 CFR 261.6(a)(2), (3), and (4), which is incorporated by reference in R315-2-6, except to the extent that they are referred to in R315-15 or R315-14-2, which incorporates by reference 40 CFR subpart D, R315-14-5, which incorporates by reference 40 CFR 266 subpart F, and R315-14-6, which incorporates by reference 40 CFR 266 subpart G;

(4) A generator accumulating hazardous waste on-site in compliance with R315-5-3.34, which incorporates by reference 40 CFR 262.34, except to the extent the requirements are included in R315-5-3.34, which incorporates by reference 40 CFR 262.34;

(5) A farmer disposing of waste pesticides from his own use in compliance with R315-5-7;

(6) The owner or operator of a totally enclosed treatment facility, as defined in R315-1;

(7) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in R315-1-1(b), which incorporates by reference 40 CFR 260.10, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes, other than the D001 High TOC Subcategory defined in the Table of Treatment Standards for Hazardous Wastes in 40 CFR 268.40 as incorporated by reference at R315-13, or reactive (D003) waste, to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in R315-7-9.8(b);

(8) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of R315-5-3.30 at a transfer facility for a period of ten days or less;

(9)(i) Except as provided in R315-7-8(c)(9)(i), a person engaged in treatment or containment activities during immediate response to any of the following situations:

(A) A discharge of a hazardous waste;

(B) An imminent and substantial threat of a discharge of a hazardous waste;

(C) A discharge of a material which, when discharged, becomes a hazardous waste.

(ii) An owner or operator of a facility otherwise regulated by this section shall comply with all applicable requirements of R315-7-10 and R315-7-11.

(iii) Any person who is covered by R315-7-8(c)(9)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of R315-7 and of R315-3 for those activities.

(10) The addition of absorbent material to waste in a container, as defined in R315-1, or the addition of waste to the absorbent material in a container provided that these actions occur at the time waste is first placed in the containers; and R315-7-9.8(b), R315-7-16.2 and R315-7-16.3 are complied with;

(11) Universal waste handlers and universal waste transporters (as defined in R315-16-1.7) handling the wastes listed below. These handlers are subject to regulation under section R315-16, when handling the below listed universal wastes:

(i) Batteries as described in R315-16-1.2;

(ii) Pesticides as described in R315-16-1.3;

(iii) Mercury thermostats as described in R315-16-1.4; and

(iv) Mercury lamps as described in R315-16-1.6

(d) Notwithstanding any other provisions of these rules enforcement actions may be brought pursuant to R315-2-14 or Section 19-6-115 Utah Solid and Hazardous Waste Act.

(e) The following hazardous wastes shall not be managed at facilities subject to regulation under R315-7.

(1) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027 unless:

(i) The wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;

(ii) The waste is stored in tanks or containers;

(iii) The waste is stored or treated in waste piles that meet the requirements of R315-8-12.1(c) as well as all other applicable requirements of R315-8-12;

(iv) The waste is burned in incinerators that are certified pursuant to the standard and procedures in R315-7-22.6; or

(v) The waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in R315-7-23.7.

(f) The requirements of this rule apply to owners or operators of all facilities which treat, store, or dispose of hazardous waste referred to in R315-13, which incorporates by reference 40 CFR 268, and the R315-13 standards are considered material conditions or requirements of the R315-7 interim status standards.

**R315-7-9. General Facility Standards.**

9.1 APPLICABILITY

The rules in this section apply to the owners and operators of all hazardous waste management facilities, except as provided otherwise in R315-7-8.1.

9.2 IDENTIFICATION NUMBER

Every facility owner or operator shall apply for an EPA identification number in accordance with Section 3010 of RCRA. Facility owners or operators who did not obtain an EPA Identification Number for their facilities through the notification process shall obtain one. Information on obtaining this number can be acquired by contacting the Utah Division of Solid and Hazardous Waste Management.

9.3 REQUIRED NOTICES

(a)(1) An owner or operator of a facility that has arranged to receive hazardous waste from a foreign source shall notify the Board in writing at least four weeks in advance of the expected date of arrival of these shipments at the facility. A notice of subsequent shipments of the same waste from the same foreign sources is not required.

(2) The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to R315-5-15, which incorporates by reference 40 CFR 262, subpart H, shall provide a copy of the tracking document bearing all required signatures to the notifier, to the Division of Solid and Hazardous Waste, P.O. Box 144880, Salt Lake City, Utah, 84114-4880; Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460; and to the competent authorities of all other concerned countries within three working days of receipt of the shipment. The original of the signed tracking document must be maintained at the facility for at least three years.

(b) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator shall notify the new owner or operator in writing of the requirements of R315-7 and R315-3. An owner's or operator's failure to notify the new owner or operator of the requirements of R315-7 in no way relieves the new owner or operator of his obligation to comply with all applicable requirements.

9.4 GENERAL WASTE ANALYSIS

The requirements of 40 CFR 265.13, 1996 ed., are adopted and incorporated by reference.

9.5 SECURITY

(a) A facility owner or operator shall prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility; unless

(1) Physical contact with the waste, structures, or equipment within the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility; and

(2) Disturbance of the waste or equipment by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility will not cause a violation of the requirements of R315-7.

(b) Unless exempt under R315-7-9.5(a)(1) and (a)(2), facilities shall have;

(1) A 24-hour surveillance system, e.g., television monitoring or surveillance by guards or facility personnel, which continuously monitors and controls entry onto the active portion of the facility; or

(2)(i) An artificial or natural barrier or both, e.g. a fence in good repair or a cliff, which completely surrounds the active portion of the facility; and

(ii) A means to control entry at all times through the gates or other entrances to the active portion of the facility, e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility.

The requirements of R315-7-9.5(b) are satisfied if the facility or plant within which the active portion is located itself has a surveillance system or a barrier and a means to control entry which complies with the requirements of R315-7-9.5(b)(1) and (2).

(c) Unless exempt under R315-7-9.5(a)(1) and (a)(2), a sign with the legend, "Danger -Unauthorized Personnel Keep Out", shall be posted at each entrance to the active portion of a facility and at other locations, in sufficient numbers to be seen from any approach to the active portion. The legend shall be written in English and any other language predominant in the area surrounding the facility and shall be legible from a distance of at least twenty-five feet. Existing signs with a legend other than "Danger - Unauthorized Personnel Keep Out" may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion is potentially dangerous.

Owners or operators are encouraged to also describe on the sign the type of hazard, e.g., hazardous waste, flammable wastes, etc., contained within the active portion of the facility. See R315-7-14.7(b) for discussion of security requirements at disposal facilities during the post-closure care period.

9.6 GENERAL INSPECTION REQUIREMENTS

(a) Facility owners or operators shall inspect their facilities for malfunctions and deterioration, operator errors, and discharges, which may be causing or may lead to (1) release of hazardous waste constituents to the environment or (2) a threat to human health. These inspections shall be conducted frequently enough to identify problems in time to correct them before they harm human health or the environment.

(b) Facility owners or operators shall develop and follow a written schedule for inspecting monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment, e.g., dikes and sump pumps, that are important to preventing, detecting, or responding to environmental or human health hazards. The schedule shall be kept at the facility, and shall identify the types of problems, i.e., malfunctions or deterioration, which are to be looked for during the inspection, for example, inoperative sump pump, leaking fitting, eroding dike, etc. The frequency of inspection may vary for the items on the schedule. However, it should be based on the rate of deterioration of the

equipment and the probability of an environmental or human health incident if the deterioration, malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas shall be inspected daily when in use. At a minimum, the inspection schedule shall include the items and frequencies called for in R315-7-16.5, R315-7-17, which incorporates by reference 40 CFR 265.190 - 265.201, R315-7-18.5, R315-7-19.12, R315-7-20.5, R315-7-21.12, R315-7-22.4, R315-7-23.4, R315-7-24.4, R315-7-26, which incorporates by reference 40 CFR 265.1033, R315-7-27, which incorporates by reference 40 CFR 265.1052, 265.1053, and 265.1058 and R315-7-30, which incorporates by reference 40 CFR 265.1084 through 265.1090.

(c) The owner or operator shall remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.

(d) The owner or operator shall keep records of inspections in an inspection log or summary. These records shall be retained for at least three years. At a minimum, these records shall include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs made or remedial actions taken.

9.7 PERSONNEL TRAINING

(a)(1) Facility personnel shall successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of R315-7, and that includes all the elements described in R315-7-9.7(d)(3).

(2) This program shall be directed by a person trained in hazardous waste management procedures, and shall include instruction supplementing the facility personnel's existing job knowledge, which teaches facility personnel hazardous waste management procedures, including contingency plan implementation, relevant to the positions in which they are employed.

(3) At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including, but not necessarily limited to, the following, where applicable:

(i) Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment;

(ii) Key parameters for automatic waste feed cut-off systems;

(iii) Communications or alarm systems or both;

(iv) Response to fires or explosions;

(v) Response to groundwater contamination incidents; and

(vi) Shutdown of operations.

(b) Facility personnel shall successfully complete the program required in R315-7-9.7(a) within six months after the effective date of these rules or six months after the date of employment or assignment to a facility, or to a new position at a facility, whichever is later. Employees hired after the effective date of these rules shall not work in unsupervised positions until they have completed the training requirements of R315-7-9.7(a).

(c) Facility personnel shall take part in an annual review of their initial training in R315-7-9.7(a).

(d) Owners or operators of facilities shall maintain the following documents and records at their facilities and make them available to the Board or its duly appointed representative upon request:

(1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;

(2) A written job description for each position listed under R315-7-9.7(d)(1). This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but shall include the requisite skill, education, or other qualifications and duties of facility personnel assigned to each position;

(3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under R315-7-9.7(d)(1); and

(4) Records that document that the training or job experience required under paragraphs R315-7-9.7(a), (b), and (c) has been given to, and completed by, facility personnel.

(e) Training records on current personnel shall be maintained until closure of the facility; training records on former employees shall be maintained for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company.

9.8 GENERAL REQUIREMENTS FOR IGNITABLE, REACTIVE, OR INCOMPATIBLE WASTES

(a) The owner or operator shall take precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste shall be separated and protected from sources of ignition or reaction including but not limited to: open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks, static, electrical, or mechanical, spontaneous ignition, e.g., from heat-producing chemical reactions, and radiant heat. While ignitable or reactive waste is being handled, the owner or operator shall confine smoking and open flames to specially designated locations. "No Smoking" signs shall be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by R315-7, the treatment, storage, or disposal of ignitable or reactive waste and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, shall be conducted so that it does not:

(1) Generate uncontrolled extreme heat or pressure, fire or explosion, or violent reaction;

(2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;

(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosion;

(4) Damage the structural integrity of the device or facility containing the waste; or

(5) Through other like means threaten human health or the environment.

9.9 LOCATION STANDARDS

The placement of any hazardous waste in a salt dome, salt bed formation, underground mine or cave is prohibited, except for the Department of Energy Waste Isolation Pilot Project in New

Mexico.

9.10 CONSTRUCTION QUALITY ASSURANCE PROGRAM

(a) CQA program. (1) A construction quality assurance, CQA, program is required for all surface impoundment, waste pile, and landfill units that are required to comply with R315-7-18.9(a), R315-7-19.9, and R315-7-21.10(a). The program shall ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program shall be developed and implemented under the direction of a CQA officer who is a registered professional engineer.

(2) The CQA program shall address the following physical components, where applicable:

(i) Foundations;

(ii) Dikes;

(iii) Low-permeability soil liners;

(iv) Geomembranes, flexible membrane liners;

(v) Leachate collection and removal systems and leak detection systems; and

(vi) Final cover systems.

(b) Written CQA plan. Before construction begins on a unit subject to the CQA program under R315-7-9.10(a), the owner or operator shall develop a written CQA plan. The plan shall identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation. The CQA plan shall include:

(1) Identification of applicable units, and a description of how they will be constructed.

(2) Identification of key personnel in the development and implementation of the CQA plan, and CQA officer qualifications.

(3) A description of inspection and sampling activities for all unit components identified in R315-7-9.10(a)(2), including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description shall cover: Sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under R315-7-12.4.

(c) Contents of program. (1) The CQA program shall include observations, inspections, tests, and measurements sufficient to ensure:

(i) Structural stability and integrity of all components of the unit identified in R315-7-9.10(a)(2);

(ii) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components, e.g., pipes, according to design specifications;

(iii) Conformity of all materials used with design and other material specifications under R315-8-11.2, R315-8-12.2, and R315-8-14.2.

(2) The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full-scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of R315-8-11.2(c)(1), R315-8-12.2(c)(1), and R315-8-14.2(c)(1) in the field. Compliance with the hydraulic conductivity requirements shall be verified by using in-situ testing on the constructed test fill. The test fill requirement is waived where data are sufficient to show that a constructed soil liner meets the hydraulic conductivity requirements of R315-8-11.2(c)(1), R315-8-12.2(c)(1), and R315-8-14.2(c)(1) in the field.

(d) Certification. The owner or operator of units subject to R315-7-9.10 shall submit to the Executive Secretary by certified mail or hand delivery, at least 30 days prior to receiving waste, a certification signed by the CQA officer that the CQA plan has been successfully carried out and that the unit meets the requirements of R315-8-11.2(a), R315-8-12.2, or R315-8-14.2(a). The owner or operator may receive waste in the unit after 30 days from the Executive Secretary's receipt of the CQA certification unless the Executive Secretary determines in writing that the construction is not acceptable, or extends the review period for a maximum of 30 more days, or seeks additional information from the owner or operator during this period. Documentation supporting the CQA officer's certification shall be furnished to the Executive Secretary upon request.

**R315-7-10. Preparedness and Prevention.**

10.1 APPLICABILITY

The rules in this section apply to the owners and operators of all hazardous waste management facilities, except as provided otherwise in R315-7-8.1.

10.2 MAINTENANCE AND OPERATION OF FACILITY

Facilities shall be maintained and operated to minimize the possibility of a fire, explosion or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment.

10.3 REQUIRED EQUIPMENT

All facilities shall be equipped with the following, unless there are no hazards posed by waste handled at the facility which could require a particular kind of equipment specified below:

(a) An internal communications or alarm system capable of providing immediate emergency instruction, voice or signal, to facility employees;

(b) A device capable of summoning external emergency assistance from law enforcement agencies, fire departments or state or local emergency response teams, such as a telephone, immediately available at the scene of operations, or a hand-held two way radio;

(c) Portable fire extinguishers, fire control equipment, including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals, discharge control equipment, and decontamination equipment; and

(d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems.

10.4 TESTING AND MAINTENANCE OF EQUIPMENT

All facility communications or alarm systems, fire protection equipment, safety equipment, discharge control equipment, and decontamination equipment, where required, shall be tested and

maintained as necessary to assure its proper operation in time of emergency.

10.5 ACCESS TO COMMUNICATIONS OR ALARM SYSTEM

(a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all employees involved in the operation shall have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless a device is not required under R315-7-10.3.

(b) If there is just one employee on the premises while the facility is operating, he shall have immediate access to a device capable of summoning external emergency assistance, such as a telephone, immediately available at the scene of operation, or a hand-held two-way radio, unless a device is not required under R315-7-10.3.

10.6 REQUIRED AISLE SPACE

The facility owner or operator shall maintain aisle space to allow the unobstructed movement of personnel, fire protection equipment, discharge control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes.

10.7 ARRANGEMENTS WITH LOCAL AUTHORITIES

(a) The owner or operator shall attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

(1) Arrangements to familiarize law enforcement agencies, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to the roads inside the facility, and possible evacuation routes;

(2) Where more than one law enforcement agency and fire department might respond to an emergency, agreements designating primary emergency authority to a specific law enforcement agency and a specific fire department, and agreements with any others to provide support to the primary emergency authority;

(3) Agreements with state emergency response teams, emergency response contractors, and equipment suppliers; and

(4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where state or local authorities decline to enter into these arrangements, the owner or operator shall document the refusal in the operating record.

**R315-7-11. Contingency Plan and Emergency Procedures.**

11.1 APPLICABILITY

The rules in this section apply to the owners and operators of all hazardous waste management facilities, except as provided otherwise in R315-7-8.1.

11.2 PURPOSE AND IMPLEMENTATION OF CONTINGENCY PLAN

(a) Each owner or operator shall have a contingency plan for his facility designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden discharge of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan shall be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten the environment or human health.

11.3 CONTENT OF CONTINGENCY PLAN

(a) The contingency plan shall describe the actions facility personnel shall take to comply with R315-7-11.2 and R315-7-11.7 in response to fires, explosions, or any unplanned sudden or non-sudden discharge of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If a facility owner or operator already has prepared a Spill Prevention, Control and Countermeasures (SPCC) Plan in accordance with 40 CFR 112, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions sufficient to comply with the requirements of R315-7.

(c) The plan shall describe arrangements agreed to by local law enforcement agencies, fire departments, hospitals, contractors, and state and local emergency response teams to coordinate emergency services, in accordance with R315-7-10.7.

(d) The plan shall list names, addresses, phone numbers, office and home, of all persons qualified to act as facility emergency coordinator, see R315-7-11.6, and this list shall be kept up-to-date. Where more than one person is listed, one shall be named as primary emergency coordinator and others shall be listed in the order in which they will assume responsibility as alternates.

(e) The plan shall include a list of all emergency equipment at the facility, such as fire extinguishing systems, discharge control equipment, communications and alarm systems, internal and external, and decontamination equipment, where this equipment is required. This list shall be kept up-to-date. In addition, the plan shall include the location and physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan shall include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan shall describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes, in cases where the primary routes could be blocked by discharges of hazardous waste or fires.

11.4 COPIES OF CONTINGENCY PLAN

A copy of the contingency plan and all revisions to the plan shall be:

(a) Maintained at the facility;

(b) Made available to the Board or its duly appointed representative upon request; and

(c) Submitted to all local law enforcement agencies, fire departments, hospitals, and state and local emergency response teams that may be called upon to provide emergency services.

11.5 AMENDMENT OF CONTINGENCY PLAN

The contingency plan shall be reviewed, and immediately amended, if necessary, under any of the following circumstances:

(a) Revisions to applicable regulations;

(b) Failure of the plan in an emergency;

(c) Changes in the facility design, construction, operation, maintenance, or other circumstances that materially increase the potential for discharges of hazardous waste or hazardous waste constituents, or change the response necessary in an emergency;

(d) Changes in the list of emergency coordinators; or

(e) Changes in the list of emergency equipment.

11.6 EMERGENCY COORDINATOR

At all times, there shall be at least one employee either on the facility premises or on call, i.e., available to respond to an emergency by reaching the facility within a short period of time, with the responsibility for coordinating all emergency response measures. This facility emergency coordinator shall be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location of all records within the facility, and the facility layout. In addition, this person shall have the authority to commit the resources needed to carry out the contingency plan. The emergency coordinator's responsibilities are more fully spelled out in R315-7-11.7. Applicable responsibilities for the emergency coordinator vary depending on factors such as type and variety of waste(s) handled by the facility, and type and complexity of the facility.

11.7 EMERGENCY PROCEDURES

(a) Whenever there is an imminent or actual emergency situation, the emergency coordinator, or his designee when the emergency coordinator is on call, shall immediately:

(1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and

(2) Notify appropriate state or local agencies with designated response roles whenever their assistance is needed.

(b) In the event of a discharge, fire, or explosion, the facility's emergency coordinator shall immediately identify the character, exact source, amount, and areal extent of any discharged materials. He may do this by observation or review of facility records or manifests, and, if necessary, by chemical analysis.

(c) Concurrently, the facility's emergency coordinator shall immediately assess possible hazards to the environment or human health that may result from the discharge, fire, or explosion. This assessment shall consider both direct and indirect effects of the discharge, fire, or explosion, e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions.

(d) If the emergency coordinator determines that the facility has had a discharge, fire, or explosion which could threaten human health or the environment, outside the facility, he shall report his findings as follows:

(1) If his assessment indicates that evacuation of local areas may be advisable, he shall immediately notify appropriate local authorities. He shall be available to assist appropriate officials in making the decision whether local areas should be evacuated; and

(2) He shall immediately notify both the Utah State Department of Environmental Quality as specified in R315-9 and the government officials designated as the on-scene coordinator for that geographical area, in the applicable regional contingency plan under 40 CFR 1510, or the National Response Center, 800/424-8802. The report shall include:

(i) Name and telephone number of reporter;

(ii) Name and address of facility;

(iii) Time and type of incident, e.g., discharge, fire;

(iv) Name and quantity of material(s) involved, to the extent available;

(v) The extent of injuries, if any; and

(vi) The possible hazards to human health, or the environment, outside the facility.

(e) During an emergency, the facility's emergency coordinator shall take all reasonable measures necessary to ensure that fires, explosions, and discharges do not occur, recur, or spread to other hazardous waste at the facility. These measures shall include, where applicable, stopping processes and operations, collecting and containing discharged waste, and removing or isolating containers.

(f) If the facility stops operations in response to a discharge, fire, or explosion, the facility's emergency coordinator shall monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the facility's emergency coordinator shall provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a discharge, fire, or explosion at the facility.

Unless the owner or operator can demonstrate, in accordance with R315-2-3(c) or (d), that the recovered material is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements in R315-4, R315-5, R315-7, and R315-8.

(h) The facility's emergency coordinator shall ensure that, in the affected area(s) of the facility:

(1) No waste that may be incompatible with the discharged material is treated, stored, or disposed of until cleanup procedures are completed; and

(2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The facility owner or operator shall notify the Board and other appropriate state and local authorities, that the facility is in compliance with R315-7-11.7(h) before operations are resumed in the affected area(s) of the facility.

(j) The facility owner or operator shall record in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within 15 days after the incident, he shall submit a written report on the incident to the Board. The report shall include:

(1) Name, address, and telephone number of the owner or operator;

(2) Name, address, and telephone number of the facility;

(3) Date, time, and type of incident, e.g., fire, discharge;

(4) Name and quantity of material(s) involved;

(5) The extent of injuries, if any;

(6) An assessment of actual or potential hazards to the environment or human health, where this is applicable; and

(7) Estimated quantity and disposition of recovered material that resulted from the incident.

**R315-7-12. Manifest System, Recordkeeping, and**

**Reporting.**

12.1 APPLICABILITY

The rules in R315-7-12 apply to owners and operators of both on-site and off-site facilities, except as provided otherwise in R315-7-8.1. R315-7-12.2, R315-7-12.3, and R315-7-12.7 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources.

12.2 USE OF MANIFEST SYSTEM

(a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, shall:

(1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;

(2) Note any significant discrepancies in the manifest, as defined in R315-7-12.3, on each copy of the manifest;

The Board does not intend that the owner or operator of a facility whose procedures under R315-7-9.4(c) include waste analysis shall perform that analysis before signing the manifest and giving it to the transporter. R315-7-12.3(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.

(3) Immediately give the transporter at least one copy of the signed manifest;

(4) Within 30 days after the delivery, send a copy of the manifest to the generator; and

(5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures) the owner or operator, or his agent, shall:

(1) Sign and date each copy of the manifest or shipping paper, if the manifest has not been received, to certify that the hazardous waste covered by the manifest or shipping paper was received;

(2) Note any significant discrepancies, as defined in R315-7-12.3(a), in the manifest or shipping paper, if the manifest has not been received, on each copy of the manifest or shipping paper;

(3) Immediately give the rail or water, bulk shipment, transporter at least one copy of the manifest or shipping paper, if the manifest has not been received;

(4) Within 30 days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within 30 days after delivery, the owner or operator, or his agent, shall send a copy of the signed and dated shipping paper to the generator; and

(5) Retain at the facility a copy of the manifest and shipping paper, if signed in lieu of the manifest at the time of delivery for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility shall comply with the requirements of R315-5.

The provisions of R315-5-9.1 are applicable to the on-site accumulation of hazardous wastes by generators and only apply to owners or operators who are shipping hazardous waste which they generated at that facility.

(d) Within three working days of the receipt of a shipment subject to R315-5-15, which incorporates by reference 40 CFR 262 subpart H, the owner or operator of the facility shall provide a copy of the tracking document bearing all required signatures to the notifier, to the Division of Solid and Hazardous Waste, P.O. Box 144880, Salt Lake City, Utah, 84114-4880; Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), Environmental Protection Agency, 401 M St., SW., Washington, DC 20460; and to competent authorities of all other concerned countries. The original copy of the tracking document shall be maintained at the facility for at least three years from the date of signature.

12.3 MANIFEST DISCREPANCIES

(a) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are: (1) for bulk waste, variations greater than ten percent in weight, and (2) for batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload. Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest.

(b) Upon discovering a significant discrepancy, the owner or operator shall attempt to reconcile the discrepancy with the waste generator or transporter, e.g., with telephone conversations. If the discrepancy is not resolved within 15 days of receipt of the waste, the owner or operator shall immediately submit a letter describing the discrepancy, and attempts to reconcile it, including a copy of the manifest at issue, to the Board.

12.4 OPERATING RECORD

The requirements as found in 40 CFR 265.73, 1997 ed., as amended by 62 FR 64636, December 8, 1997, are adopted and incorporated by reference.

12.5 AVAILABILITY, RETENTION, AND DISPOSITION OF RECORDS

(a) All records, including plans, required under R315-7 shall be furnished upon written request, and made available at all reasonable times for inspection.

(b) The retention period for all records required under R315-7 is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the Board.

(c) A copy of records of waste disposal locations required to be maintained under R315-7-12.4, which incorporates by reference 40 CFR 265.73, shall be turned over to the Board and the local land authority upon closure of the facility, see R315-7-14, which incorporates by reference 40 CFR 265.110 - 265.120.

12.6 BIENNIAL REPORT

Owners or operators of facilities that treat, store, or dispose of hazardous waste shall prepare and submit a single copy of a biennial report to the Board by March 1 of each even numbered year. The biennial report shall be submitted on EPA form 8700-13B. The biennial report shall cover facility activities during the previous calendar year and shall include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The calendar year covered by the report;

(c) For off-site facilities, the EPA identification number of each hazardous waste generator from which a hazardous waste was received during the year; for imported shipments, the name and address of the foreign generator shall be given;

(d) A description and the quantity of each hazardous waste received by the facility during the year. For off-site facilities, this information shall be listed by EPA identification number of each generator;

(e) The method(s) of treatment, storage, or disposal for each hazardous waste;

(f) Monitoring data, where required under R315-7-13.5(a)(2)(ii) and (iii) and (b)(2) where required;

(g) The most recent closure cost estimate under R315-7-15, which incorporates by reference 40 CFR 265.140 - 265.150;

(h) For generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated;

(i) For generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent the information is available for the years prior to 1984;

(j) The certification signed by the owner or operator of the facility or his authorized representative.

12.7 UNMAINFESTED WASTE REPORT

If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in R315-4-3(e)(2) of these rules, and if the waste is not excluded from the manifest requirements by R315-2-2, then the owner or operator shall prepare and submit a single copy of a report to the Board within 15 days after receiving the waste. These reports shall be designated "Unmanifested Waste Report" and include the following information:

(a) The EPA identification number, name, and address of the facility;

(b) The date the facility received the waste;

(c) The EPA identification number, name, and address of the generator and the transporter, if available;

(d) A description and the quantity of each unmanifested hazardous waste the facility received;

(e) The method of treatment, storage, or disposal for each hazardous waste;

(f) The certification signed by the owner or operator of the facility or his authorized representative; and

(g) A brief explanation of why the waste was unmanifested, if known.

Small quantities of hazardous waste are excluded from regulation under R315-7 and do not require a manifest. Where a facility receives unmanifested hazardous wastes, the owner or operator should obtain from each generator a certification that the waste qualifies for exclusion. Otherwise, the owner or operator should file an unmanifested waste report for the hazardous waste movement.

12.8 ADDITIONAL REPORTS

In addition to the biennial and unmanifested waste reporting requirements described in R315-7-12.6, and R315-7-12.7, a facility owner or operator shall also report to the Board:

(a) Discharges, fires, and explosions as specified in R315-7-11.7(j);

(b) Groundwater contamination and monitoring data as specified in R315-7-13.4 and R315-7-13.5;

(c) Facility closure as specified in R315-7-14, which incorporates by reference 40 CFR 265.110 - 265.120;

(d) Upon its request, all information as the Board may deem necessary to determine compliance with the requirements of R315-7;

(e) As otherwise required by R315-7-26, which incorporates by reference 40 CFR 265.1030 - 265.1035, R315-7-27, which incorporate by reference 40 CFR 265 265.1050 - 265.1064 and R315-7-30, which incorporates by reference 40 CFR 265.1080 - 265.1091.

**R315-7-13. Groundwater Monitoring.**

13.1 APPLICABILITY

(a) The owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste shall implement a groundwater monitoring program capable of determining the facility's impact on the quality of groundwater in the uppermost aquifer underlying the facility, except as R315-7-8.1 and R315-7-13.1(c) provide otherwise.

(b) Except as R315-7-13.1(c) and (d) provide otherwise, the owner or operator shall install, operate, and maintain a groundwater monitoring system which meets the requirements of R315-7-13.2, and shall comply with R315-7-13.3 - R315-7-13.5. This groundwater monitoring program shall be carried out during the active life of the facility, and for disposal facilities, during the post-closure care period as well.

(c) All or part of the groundwater monitoring sampling and analysis requirements of this section may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells, domestic, industrial, or agricultural, or to surface water. This demonstration shall be in writing, and shall be kept at the facility. This demonstration shall be certified by a qualified geologist or geotechnical engineer and shall establish the following:

(1) The potential for migration of hazardous waste or hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

(i) A water balance of precipitation, evapotranspiration, run-off, and infiltration; and

(ii) Unsaturated zone characteristics, i.e., geologic materials, physical properties, and depth to groundwater; and

(2) The potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:

(i) Saturated zone characteristics, i.e., geologic materials, physical properties, and rate of groundwater flow; and

(ii) The proximity of the facility to water supply wells or surface water.

(d) If an owner or operator assumes, or knows, that groundwater monitoring of indicator parameters in accordance with R315-7-13.2 and R315-7-13.3 would show statistically significant increases, or decreases in the case of pH, when evaluated under R315-7-13.4(b), he may install, operate, and maintain an alternate groundwater monitoring system, other than the one described in R315-7-13.2 and R315-7-13.3. If the owner or operator decides to use an alternate groundwater monitoring system he shall:

(1) Submit to the Board a specific plan, certified by a qualified geologist or geotechnical engineer, which satisfies the requirements of R315-7-13.4(d)(3) for an alternate groundwater monitoring system;

(2) Initiate the determinations specified in R315-7-13.4(d)(4);

(3) Prepare and submit a written report in accordance with R315-7-13.4(d)(5);

(4) Continue to make the determinations specified in R315-7-13.4(d)(4) on a quarterly basis until final closure of the facility; and

(5) Comply with the recordkeeping and reporting requirements in R315-7-13.5(d).

(e) The groundwater monitoring requirements of this section may be waived with respect to any surface impoundment that (1) is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristics under R315-2-9 or are listed as hazardous wastes in R315-2-10 only for this reason, and (2) contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment. The demonstration must be established, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by a qualified professional.

(f) The Executive Secretary may replace all or part of the requirements of R315-7-13 applying to a regulated unit, as defined in R315-8-6, with alternative requirements developed for groundwater monitoring set out in an approved closure or post-closure plan or in an enforceable document, as defined in R315-3-1.1(e)(7), where the Executive Secretary determines that:

(1) A regulated unit is situated among solid waste management units, or areas of concern, a release has occurred, and both the regulated unit and one or more solid waste management unit(s), or areas of concern, are likely to have contributed to the release; and

(2) It is not necessary to apply the requirements of R315-7-13 because the alternative requirements will protect human health and the environment. The alternative standards for the regulated unit must meet the requirements of R315-8-6.12(a).

13.2 GROUNDWATER MONITORING SYSTEM

(a) A groundwater monitoring system shall be capable of yielding groundwater samples for analysis and shall consist of:

(1) Monitoring wells, at least one, installed hydraulically upgradient, i.e., in the direction of increasing static head from the limit of the waste management area. Their number, locations, and depths shall be sufficient to yield groundwater samples that are:

(i) Representative of background groundwater quality in the uppermost aquifer near the facility; and

(ii) Not affected by the facility.

(2) Monitoring wells, at least three, installed hydraulically downgradient, i.e., in the direction of decreasing static head, at the limit of the waste management area. Their number, locations, and depths shall ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

(3) The facility owner or operator may demonstrate that an alternate hydraulically downgradient monitoring well location will meet the criteria outlined below. The demonstration must be in writing and kept at the facility. The demonstration must be certified by a qualified ground-water scientist and establish that:

(i) An existing physical obstacle prevents monitoring well installation at the hydraulically downgradient limit of the waste management area; and

(ii) The selected alternate downgradient location is as close to the limit of the waste management area as practical; and

(iii) The location ensures detection that, given the alternate location, is as early as possible of any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.

(iv) Lateral expansion, new, or replacement units are not eligible for an alternate downgradient location under this paragraph.

(b) Separate monitoring systems for each waste management component of the facility are not required provided that provisions for sampling upgradient and downgradient water quality will detect any discharge from the waste management area.

(1) In the case of a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste management area is described by the waste boundary perimeter.

(2) In the case of a facility consisting of more than one surface impoundment, landfill, or land treatment area, the waste management area is described by an imaginary boundary line which circumscribes the several waste management components.

(c) All monitoring wells shall be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing shall be screened or perforated, and packed with gravel or sand where necessary to enable sample collection at depths where appropriate aquifer flow zones exist. The annular space, i.e., the space between the bore hole and well casing above the sampling depth shall be sealed with a suitable material, e.g., cement grout or bentonite slurry, to prevent contamination of samples and the ground water.

13.3 SAMPLING AND ANALYSIS

(a) The owner or operator shall obtain and analyze samples from the installed groundwater monitoring system. The owner or operator shall develop and follow a groundwater sampling and analysis plan. He shall keep this plan at the facility. The plan shall include procedures and techniques for:

(1) Sample collection;

(2) Sample preservation and shipment;

(3) Analytical procedures; and

(4) Chain of custody control.

See "Procedures Manual for Groundwater Monitoring at Solid Waste Disposal Facilities," EPA-530/SW-611, August 1977 and

"Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1979 for discussions of sampling and analysis procedures.

(b) The owner or operator shall determine the concentration or value of the following parameters in groundwater samples in accordance with R315-7-13.3(c) and (d):

(1) Parameters characterizing the suitability of the groundwater as a drinking water supply, as specified in R315-50-3, which incorporates by reference 40 CFR 265, Appendix III.

(2) Parameters establishing groundwater quality:

(i) Chloride

(ii) Iron

(iii) Manganese

(iv) Phenols

(v) Sodium

(vi) Sulfate

These parameters are to be used as a basis for comparison in the event a groundwater quality assessment is required under R315-7-13.4(d).

(3) Parameters used as indicators of groundwater contamination:

(i) pH

(ii) Specific Conductance

(iii) Total Organic Carbon

(iv) Total Organic Halogen

(c)(1) For all monitoring wells, the owner or operator shall establish initial background concentrations or values of all parameters specified in R315-7-13.3(b). He shall do this quarterly for one year.

(2) For each of the indicator parameters specified in R315-7-13.3(b)(3), at least four replicate measurements shall be obtained for each sample and the initial background arithmetic mean and variance shall be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.

(d) After the first year, all monitoring wells shall be sampled and the samples analyzed with the following frequencies:

(1) Samples collected to establish groundwater quality shall be obtained and analyzed for the parameters specified in R315-7-13.3(b)(2) at least annually.

(2) Samples collected to indicate groundwater contamination shall be obtained and analyzed for the parameters specified in R315-7-13.3(b)(3) at least semiannually.

(e) Elevation of the groundwater surface at each monitoring well shall be determined each time a sample is obtained.

13.4 PREPARATION, EVALUATION, AND RESPONSE

(a) The owner or operator shall prepare an outline of a groundwater quality assessment program. The outline shall describe a more comprehensive groundwater monitoring program, than that described in R315-7-13.2 and R315-7-13.3, capable of determining:

(1) Whether hazardous waste or hazardous waste constituents have entered the groundwater;

(2) The rate and extent of migration of hazardous waste or hazardous waste constituents in the groundwater; and

(3) The concentrations of hazardous waste or hazardous waste constituents in the groundwater.

(b) For each indicator parameter specified in R315-7-13.3(b)(3), the owner or operator shall calculate the arithmetic mean and variance, based on at least four replicate measurements on each sample, for each well monitored in accordance with R315-7-13.3(d)(2) and compare these results with its initial background arithmetic mean. The comparison shall consider individually each of the wells in the monitoring system, and shall use the Students t-test at the 0.01 level of significance, see R315-50-1F(a), to determine statistically significant increases, and decreases, in the case of pH, over initial background.

(c)(1) If the comparisons for the upgradient wells made under R315-7-13.4(b) show a significant increase, or pH decrease, the owner or operator shall submit this information in accordance with R315-7-13.5(a)(2)(ii).

(2) If the comparisons for downgradient wells made under R315-7-13.4(b) show a significant increase, or pH decrease, the owner or operator shall then immediately obtain additional groundwater samples from those downgradient wells where a significant difference was detected, split the samples in two, and expeditiously obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.

(d)(1) If the analyses performed under R315-7-13.4(c)(2) confirm the significant increase, or pH decrease, the owner or operator shall provide written notice to the Board--within seven days of the date of the confirmation--that the facility may be affecting groundwater quality.

(2) Within 15 days after the notification under R315-7-13.4(d)(1), the owner or operator shall develop and submit to the Board a specific plan, based on the outline required under R315-7-13.4(a) and certified by a qualified geologist or geotechnical engineer, for a groundwater quality assessment program at the facility.

(3) The plan to be submitted under R315-7-13.1(d)(1) or R315-7-13.4(d)(2) shall specify:

(i) The number, location, and depth of wells;

(ii) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;

(iii) Evaluation procedures, including any use of previously-gathered groundwater quality information; and

(iv) A schedule of implementation.

(4) The owner or operator shall implement the groundwater quality assessment plan which satisfies the requirements of R315-7-13.4(d)(3), and, at a minimum, determine:

(i) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the groundwater; and

(ii) The concentrations of the hazardous waste or hazardous waste constituents in the groundwater.

(5) The owner or operator shall make his first determination under R315-7-13.4(d)(4) as soon as technically feasible, and, within 15 days after that determination submit to the Board a written report containing an assessment of the groundwater quality.

(6) If the owner or operator determines, based on the results of the first determination under R315-7-13.4(d)(4), that no hazardous waste or hazardous waste constituents from the facility have entered the groundwater, then he may reinstate the indicator evaluation

program described in R315-7-13.3 and R315-7-13.4(b). If the owner or operator reinstates the indicator evaluation program, he shall so notify the Board in the report submitted under R315-7-13.4(d)(5).

(7) If the owner or operator determines, based on the first determination under R315-7-13.4(d)(4), that hazardous waste or hazardous waste constituents from the facility have entered the groundwater, then he:

(i) Must continue to make the determinations required under R315-7-13.4(d)(4) on a quarterly basis until final closure of the facility, if the groundwater quality assessment plan was implemented prior to final closure of the facility; or

(ii) May cease to make the determinations required under R315-7-13.4(d)(4), if the groundwater quality assessment plan was implemented during the post-closure care period.

(e) Notwithstanding any other provision of R315-7-13, any groundwater quality assessment to satisfy the requirements of R315-7-13.4(d)(4) which is initiated prior to final closure of the facility shall be completed and reported in accordance with R315-7-13.4(d)(5).

(f) Unless the groundwater is monitored to satisfy the requirements of R315-7-13.4(d)(4), at least annually the owner or operator shall evaluate the data on groundwater surface elevations obtained under R315-7-13.3(e) to determine whether the requirements under R315-7-13.2(a) for locating the monitoring wells continues to be satisfied. If the evaluation shows that R315-7-13.2(a) is no longer satisfied, the owner or operator shall immediately modify the number, location, or depth of the monitoring wells to bring the groundwater monitoring system into compliance with this requirement.

13.5 RECORDKEEPING AND REPORTING

(a) Unless the groundwater is monitored to satisfy the requirements of R315-7-13.4(d)(4), the owner or operator shall:

(1) Keep records of the analyses required in R315-7-13.3(c) and (d), the associated groundwater surface elevations required in R315-7-13.3(e), and the evaluations required in R315-7-13.4(b) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Report the following groundwater monitoring information to the Board:

(i) During the first year when initial background concentrations are being established for the facility: concentrations or values of the parameters listed in R315-7-13.3(b)(1) for each groundwater monitoring well within 15 days after completing each quarterly analysis. The owner or operator shall separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in 40 CFR 265, Appendix III.

(ii) Annually: concentrations or values of the parameters listed in R315-7-13.3(b)(3) for each groundwater monitoring well, along with the required evaluations for these parameters under R315-7-13.4(b). The owner or operator shall separately identify any significant differences from initial background found in the upgradient wells, in accordance with R315-7-13.4(c)(1). During the active life of the facility, this information shall be submitted no later than March 1 following each calendar year.

(iii) No later than March 1 following each calendar year: results of the evaluation of groundwater surface elevations under R315-7-13.4(f), and a description of the response to that evaluation, where applicable.

(b) If the groundwater is monitored to satisfy the requirements of R315-7-13.4(d)(4), the owner or operator shall:

(1) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of R315-7-13.4(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and

(2) Annually, until final closure of the facility, submit to the Board a report containing the results of his groundwater quality assessment program which includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the groundwater during the reporting period. This report shall be submitted no later than March 1, following each calendar year.

**R315-7-14. Closure and Post-Closure.**

The requirements as found in 40 CFR 265 subpart G (265.110 - 265.121), 1998 ed., as amended by 63 FR 56710, October 22, 1998, are adopted and incorporated by reference with the following exceptions:

(a) Substitute "Board" for all references to "Administrator" or "Regional Administrator".

(b) Substitute the word "appointee" for "employee."

(c) Substitute "Board" for "Agency."

(d) Substitute 19-6 for references to RCRA.

**R315-7-15. Financial Requirements.**

The requirements as found in 40 CFR 265 subpart H (265.140 - 265.150), 1998 ed., as amended by 63 FR 56710, October 22, 1998, are adopted and incorporated by reference with the following exceptions:

(a) Substitute "Board" for all references to "Administrator" or "Regional Administrator."

(b) Substitute "Board" for "Agency" or "EPA".

(c) Substitute 19-6 for references to Sections of RCRA.

**R315-7-16. Use and Management of Containers.**

16.1 APPLICABILITY

The rules in this section apply to the owners or operators of all hazardous waste management facilities that store containers of hazardous waste, except as provided otherwise in R315-7-8.1.

16.2 CONDITION OF CONTAINERS

The container holding hazardous waste shall be in good condition and shall not leak. If a container is not in good condition, or if it begins to leak, the owner or operator shall transfer the hazardous waste from the container to a storage container that is in good condition, or manage the waste in another fashion which complies with the requirements of R315-7.

16.3 COMPATIBILITY OF WASTE WITH CONTAINER

Owners or operators shall use containers made of or lined with materials which will not react with, and are otherwise compatible with, the waste to be stored, so that the ability of the container to contain the waste is not impaired.

16.4 MANAGEMENT OF CONTAINERS

(a) A container holding hazardous waste shall always be closed during storage, except when it is necessary to add or remove waste.

(b) A container holding hazardous waste shall not be opened, handled, or stored in a manner which may rupture the container or cause it to leak.

Reuse of containers is also governed by the U.S. Department of Transportation regulations, including those set forth in 49 CFR 173.28.

16.5 INSPECTIONS

In addition to the inspections required by R315-7-9.6, the owner or operator shall inspect areas where containers are stored, at least weekly, looking for leaks and for deterioration caused by corrosion or other factors. See R315-7-16.2 for remedial action required if deterioration or leaks are detected.

16.6 SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

Containers holding ignitable or reactive waste shall be located more than 15 meters, 50 feet, from the facility's property line.

See R315-7-9.8 for additional requirements.

16.7 SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

(a) Incompatible wastes or incompatible wastes and materials, see 40 CFR 265, Appendix V for examples, shall not be placed in the same container, unless R315-79.8(b) is complied with.

(b) Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material, see 40 CFR 265, Appendix V for examples, unless R315-7-9.8(b) is complied with.

(c) A storage container holding a hazardous waste that is incompatible with any waste or other materials stored nearby in other containers, open tanks, piles, or surface impoundments shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device. The purpose of this is to prevent fires, explosions, gaseous emissions, leaching, or other discharge of hazardous wastes or hazardous constituents which could result from the mixing of incompatible materials.

16.8 AIR EMISSION STANDARDS

The owner or operator shall manage all hazardous waste placed in a container in accordance with the applicable requirements of R315-7-26, which incorporates by reference 40 CFR subpart AA, R315-7-27, which incorporates by reference 40 CFR subpart BB, and R315-7-30, which incorporates by reference 40 CFR subpart CC.

**R315-7-17. Tanks.**

The requirements as found in 40 CFR 265 subpart J, 265.190-265.202, 1996 ed., as amended by 61 FR 59931, November 25, 1996, are adopted and incorporated by reference with the following exceptions:

(a) Substitute "Executive Secretary" for all references to "Regional Administrator" found in 40 CFR 265 subpart J with the exception of 40 CFR 265.193(g) and (h)(5), which will replace "Regional Administrator" with "Board".

(b) Add, following January 12, 1988, in 40 CFR 265.191(a), "or by December 16, 1988, for non-HSWA existing tank systems."

(c) Replace 40 CFR 265.193(a)(2) to (4) with the following corresponding paragraphs:

(1) For all HSWA existing tank systems used to store or treat EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, and F027, within two years after January 12, 1987, or within two years after December 16, 1988, for non-HSWA existing tank systems;

(2) For those HSWA existing tank systems of known and documented age, within two years after January 12, 1987, or within two years after December 16, 1988, for non-HSWA existing tank systems, or when the tank system has reached 15 years of age, whichever comes later;

(3) For those HSWA existing tank systems for which the age cannot be documented, within eight years of January 12, 1987, or within eight years of December 16, 1988, for non-HSWA existing tank systems; but if the age of the facility is greater than seven years, secondary containment must be provided by the time the facility reaches 15 years of age, or within two years of January 12, 1987, or within two years of December 16, 1988, for non-HSWA existing tank systems, whichever comes later; and

(d) Add, following the last January 12, 1987, in 40 CFR 265.193(a)(5), "or December 16, 1988, for non-HSWA tank systems."

**R315-7-18. Surface Impoundments.**

18.1 APPLICABILITY

The rules in this section apply to the owners and operators of facilities that use surface impoundments for the treatment, storage, or disposal of hazardous waste, except as provided otherwise in R315-7-8.1.

18.2 ACTION LEAKAGE RATE

(a) The owner or operator of surface impoundment units subject to R315-7-18.9(a) must submit a proposed action leakage rate to the Executive Secretary when submitting the notice required under R315-7-18.9(b). Within 60 days of receipt of the notification, the Executive Secretary will: Establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in this section; or extend the review period for up to 30 days. If no action is taken by the Executive Secretary before the original 60 or extended 90 day review periods, the action leakage rate will be approved as proposed by the owner or operator.

(b) The Executive Secretary shall approve an action leakage rate for surface impoundment units subject to R315-7-18.9(a). The action leakage rate is the maximum design flow rate that the leak detection system, LDS, can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(c) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate

from the monitoring data obtained under R315-7-18.5(b), to an average daily flow rate, gallons per acre per day, for each sump. Unless the Executive Secretary approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and if the unit closes in accordance with R315-7-18.6, which incorporates by reference 40 CFR 265.228(a)(2), monthly during the post-closure care period when monthly monitoring is required under R315-7-18.5(b).

18.3 CONTAINMENT SYSTEM

All earthen dikes shall have a protective cover, such as grass, shale, or rock, to minimize wind and water erosion and to preserve their structural integrity.

18.4 WASTE ANALYSIS AND TRIAL TESTS

In addition to the waste analyses required by R315-7-9.4, which incorporates by reference 40 CFR 265.13, whenever a surface impoundment is used to:

(1) Chemically treat a hazardous waste which is substantially different from waste previously treated in that impoundment; or

(2) Chemically treat hazardous waste with a substantially different process than any previously used in that impoundment; the owner or operator shall, before treating the different waste or using the different process:

(i) Conduct waste analyses and trial treatment tests, e.g., bench scale or pilot plant scale tests; or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this treatment will comply with R315-7-9.8(b).

The owner or operator shall record the results from each waste analysis and trial test in the operating record of the facility, see R315-7-12.4, which incorporates by reference 40 CFR 265.73.

18.5 MONITORING AND INSPECTIONS

(a) The owner or operator shall inspect:

(1) The freeboard level at least once each operating day to ensure compliance with R315-7-18.2, and

(2) The surface impoundment, including dikes and vegetation surrounding the dike, at least once a week to detect any leads, deterioration, or failures in the impoundment.

(b)(1) An owner or operator required to have a leak detection system under R315-7-18.9(a) shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(2) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(3) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Executive Secretary based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump. The timing for submission and approval of the proposed "pump operating level" will be in accordance with R315-7-18.2(a).

The owner or operator shall remedy any deterioration or malfunction he finds.

18.6 CLOSURE AND POST-CLOSURE

The requirements as found in 40 CFR 265.228, 1992 ed., are adopted and incorporated by reference.

18.7 SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

Ignitable or reactive waste shall not be placed in a surface impoundment, unless the waste and impoundment satisfy all applicable requirements of R315-13, which incorporates by reference 40 CFR 268, and:

(a) The waste is treated, rendered, or mixed before or immediately after placement in the impoundment so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under R315-2-9(d) and (f); and

(2) R315-7-9.8(b) is complied with; or

(b)(1) The waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react; and

(2) Maintain and monitor the leak detection system in accordance with R315-8-11.2(c)(2)(iv) and (3) and R315-7-18.5(b) and comply with all other applicable leak detection system requirements of R315-7;

(3) The owner or operator obtains a certification from a qualified chemist or engineer that, to the best of his knowledge and opinion, the design features or operating plans of the facility will prevent ignition or reaction; and

(4) The certification and the basis for it are maintained at the facility; or

(c) The surface impoundment is used solely for emergencies.

18.8 SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

Incompatible wastes or incompatible wastes and materials, see 40 CFR 265, Appendix V for examples, shall not be placed in the same surface impoundment, unless they will not generate heat, fumes, fires, or explosive reactions that could damage the structural integrity of the impoundment, or otherwise threaten human health or the environment.

18.9 DESIGN REQUIREMENTS

(a) The owner or operator of each new surface impoundment unit on which construction commences after January 29, 1992, each lateral expansion of a surface impoundment unit on which construction commences after July 29, 1992, and each replacement of an existing surface impoundment unit that is to commence reuse after July 29, 1992 must install two or more liners and a leachate collection and removal system between such liners, and operate the leachate collection and removal system, in accordance with R315-7-18.9(c), unless exempted under R315-7-18.9(d), (e), or (f). "Construction commences" is as defined in R315-1-1(b), which incorporates by reference 40 CFR 260.10, under "existing facility."

(b) The owner or operator of each unit referred to in paragraph

(a) of this section shall notify the Board at least 60 days prior to receiving waste. The owner or operator of each facility submitting notice must file a part B application within six months of the receipt of the notice.

(c) The owner or operator of any replacement surface impoundment unit is exempt from R315-7-18.9(a) if:

(1) The existing unit was constructed in compliance with the design standards of Section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and

(2) There is no reason to believe that the liner is not functioning as designed.

(d) The double liner requirement set forth in R315-7-18.9(a) may be waived by the Board for any monofill, if;

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and these wastes do not contain constituents which would render the wastes hazardous for reasons other than the Toxicity Characteristic in R315-2-9(g) with EPA Hazardous Waste Numbers D004 through D017; and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that the liner is leaking. For the purposes of this paragraph the term "liner" means a liner designed, constructed, installed, and operated to prevent hazardous waste from passing into the liner at any time during the active life of the facility, or a liner designed, constructed, installed, and operated to prevent hazardous waste from migrating beyond the liner to adjacent subsurface soil, groundwater, or surface water at any time during the active life of the facility. In the case of any surface impoundment which has been exempted from the requirements of R315-7-18.9(a) on the basis of a liner designed, constructed, installed, and operated to prevent hazardous waste from passing beyond the liner, at the closure of the impoundment the owner or operator must remove or decontaminate all waste residues, all contaminated liner material, and contaminated soil to the extent practicable given the specific site conditions and the nature and extent of contamination. If all contaminated soil is not removed or decontaminated, the owner or operator of the impoundment must comply with appropriate post-closure requirements, including but not limited to groundwater monitoring and corrective action.

(B) The monofill is located more than one-quarter mile from an underground source of drinking water, as that term is defined in 40 CFR; 144.3; and

(C) The monofill is in compliance with applicable groundwater monitoring requirements for facilities with permits; or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituent into groundwater or surface water at any future time.

(e) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of R315-7-18.9(a) and in good faith compliance with R315-7-18.9(a) and with guidance documents governing liners and leachate collection systems under R315-7-18.9(a), no liner or leachate collection system which is different from that which was so installed pursuant to R315-7-18.9(a) will be required for the unit by the Board when issuing the first permit to the facility, except that the Board will not be precluded from requiring installation of a new liner when the Board has reason to believe that any liner installed pursuant to the requirements of R315-7-18.9(a) is leaking.

(f) A surface impoundment shall maintain enough freeboard to prevent overtopping of the dike by overfilling, wave action, or a storm. Except as provided in R315-7-18.2(b), there shall be at least 60 centimeters, two feet, of freeboard.

(g) A freeboard level less than 60 centimeters, two feet, shall be maintained if the owner or operator obtains certification by a qualified engineer that alternate design features or operating plans will, to the best of his knowledge and opinion, prevent overtopping of the dike. The certification, along with written identification of alternate design features or operating plans preventing overtopping, shall be maintained at the facility.

(h) Surface impoundments that are newly subject to R315-7-18 due to the promulgation of additional listings or characteristics for the identification of hazardous waste must be in compliance with R315-7-18.9(a), (c) and (d) not later than 48 months after the promulgation of the additional listing or characteristic. This compliance period shall not be cut short as the result of the promulgation of land disposal prohibitions under R315-13, which incorporates by Reference 40 CFR 268, or the granting of an extension to the effective date of a prohibition pursuant to 40 CFR 268.5, within this 48-month period.

18.10 RESPONSE ACTIONS

(a) The owner or operator of surface impoundment units subject to R315-7-18.9(a) shall submit a response action plan to the Executive Secretary when submitting the proposed action leakage rate under R315-7-18.2. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan must describe the actions specified in R315-7-18.10(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Executive Secretary in writing of the exceedence within seven days of the determination;

(2) Submit a preliminary written assessment to the Executive Secretary within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Executive Secretary the results of the analyses specified in R315-7-18.10(b)(3)-(5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator must submit to the Executive Secretary a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in R315-7-18.10(b)(3)-(5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

18.11 AIR EMISSION STANDARDS

The owner or operator shall manage all hazardous waste placed in a surface impoundment in accordance with the applicable requirements of R315-7-27, which incorporates by reference 40 CFR subpart BB, and R315-7-30, which incorporates by reference 40 CFR subpart CC.

**R315-7-19. Waste Piles.**

19.1 APPLICABILITY

The rules in this section apply to the owners and operators of facilities that treat or store hazardous waste in piles, except as provided otherwise in R315-7-8.1. Alternatively, a pile of hazardous waste may be managed as a landfill under R315-7-21.

19.2 PROTECTION FROM WIND

The owners or operators of a pile containing hazardous waste which could be subject to dispersal by wind shall cover or otherwise manage the pile so that the wind dispersal is controlled.

19.3 WASTE ANALYSIS

In addition to the waste analyses required by R315-7-9.4, owners or operators shall analyze a representative sample from each incoming shipment of waste before adding the waste to any existing pile, unless the only wastes the facility receives which are amenable to piling are compatible with each other, or the waste received is compatible with the waste in the pile to which it is to be added. The analysis conducted shall be capable of differentiating between the types of hazardous waste which are placed in piles, so that mixing of incompatible waste does not inadvertently occur. The analysis shall include a visual comparison of color and texture. The results of these analyses shall be placed in the operating record.

19.4 CONTAINMENT

If leachate or run-off from a pile is a hazardous waste, then either:

(a)(1) The pile shall be placed on an impermeable base that is compatible with the waste under the conditions of treatment or storage;

(2) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the pile during peak discharge from at least a 25-year storm;

(3) The owner or operator shall design, construct, operate, and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm; and

(4) Collection and holding facilities, e.g., tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously to maintain design capacity of the system; or

(b)(1) The pile shall be protected from precipitation and run-on by some other means; and

(2) No liquids or wastes containing free liquids may be placed in the pile.

19.5 SPECIAL REQUIREMENTS FOR IGNITABLE WASTE

Ignitable waste shall not be placed in a pile unless the waste and waste pile satisfy all applicable requirements of R315-13, which incorporates by reference 40 CFR 268, and:

(a) Addition of the waste to an existing pile results in the waste or mixture no longer meeting the definition of ignitable waste under R315-2-9(d), and complies with R315-7-9.8; or

(b) The waste is managed in such a way that it is protected from any material or conditions which may cause it to react.

19.6 REQUIREMENTS FOR REACTIVE WASTE

Reactive waste shall not be placed in a pile unless the waste and pile satisfy all applicable requirements of R315-13, which incorporates by reference 40 CFR 268, and:

(a) Addition of the waste to an existing pile results in the waste or mixture no longer meeting the definition of reactive waste under R315-2-9(f) and complies with R315-7-9.8; or

(b) The waste is managed in such a way that it is protected from any material or condition which may cause it to react.

19.7 SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTE

(a) Incompatible waste, or incompatible wastes and materials, see 40 CFR 265, Appendix V for examples, shall not be placed in the same pile unless, R315-7-9.8(b) is complied with.

(b) A pile of hazardous waste that is incompatible with any waste or other material stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other materials, or protected from them by means of a dike, berm, wall, or other device. The purpose of this is to prevent gaseous emissions, fires, explosions, leaching or other discharge of hazardous waste or hazardous waste constituents which could result from the contact or mixing of incompatible wastes or materials.

(c) Hazardous waste shall not be piled on the same area where incompatible wastes or materials were previously piled, unless that area has been decontaminated sufficiently to ensure compliance with R315-7-9.8(b).

19.8 CLOSURE AND POST-CLOSURE CARE

(a) At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components, liners, etc., contaminated subsoils, and structures and equipment contaminated with waste and leachate, and manage them as hazardous waste unless R315-2-3(d) applies; or

(b) If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in R315-7-19.8(a), the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall close the facility and perform post-closure care in accordance with the closure and post-closure requirements that apply to landfills, R315-7-21.4.

19.9 DESIGN AND OPERATING REQUIREMENTS

The owner or operator of each new waste pile on which construction commences after January 29, 1992, each lateral expansion of a waste pile unit on which construction commences after July 29, 1992, and each such replacement of an existing waste pile unit that is to commence reuse after July 29, 1992 shall install two or more liners and a leachate collection and removal system above and between such liners, and operate the leachate collection and removal systems, in accordance with R315-8-12.2(c), unless exempted under R315-8-12.2(d), (e), or (f); and must comply with the procedures of R315-7-18.9(b). "Construction commences" is as defined in R315-1-1(b), which incorporates by reference 40 CFR 260.10, under "existing facility".

19.10 ACTION LEAKAGE RATES

(a) The owner or operator of waste pile units subject to R315-7-19.9 shall submit a proposed action leakage rate to the Executive Secretary when submitting the notice required under R315-7-19.9. Within 60 days of receipt of the notification, the Executive Secretary will: Establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in this section; or extend the review period for up to 30 days. If no action is taken by the Executive Secretary before the original 60 or extended 90 day review periods, the action leakage rate will be approved as proposed by the owner or operator.

(b) The Executive Secretary shall approve an action leakage rate for surface impoundment units subject to R315-7-19.9. The action leakage rate is the maximum design flow rate that the leak detection system, LDS, can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib layover and creep of synthetic components of the system, overburden pressures, etc.

(c) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly flow rate from the monitoring data obtained under R315-7-19.12, to an average daily flow rate, gallons per acre per day, for each sump. Unless the Executive Secretary approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period.

19.11 RESPONSE ACTIONS

(a) The owner or operator of waste pile units subject to R315-7-19.9 shall submit a response action plan to the Executive Secretary when submitting the proposed action leakage rate under R315-7-19.10. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in R315-7-19.11(b).

(b) If the flow rate into the leak determination system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Executive Secretary in writing of the exceedence within seven days of the determination;

(2) Submit a preliminary written assessment to the Executive Secretary within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipts should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Executive Secretary the results of the analyses specified in R315-7-19.11(b)(3)-(5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Executive Secretary a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in R315-7-19.11(b)(3)-(5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

19.12 MONITORING AND INSPECTION

An owner or operator required to have a leak detection system under R315-7-19.9 shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

**R315-7-20. Land Treatment.**

20.1 APPLICABILITY

The rules in this section apply to owners and operators of hazardous waste land treatment facilities, except as provided otherwise in R315-7-8.1.

20.2 GENERAL OPERATING REQUIREMENTS

(a) Hazardous waste shall not be placed in or on a land treatment facility unless the waste can be made less hazardous or non-hazardous by degradation, transformation, or immobilization processes occurring in or on the soil.

(b) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portions of the facility during peak discharge from at least a 25-year storm.

(c) The owner or operator shall design, construct, operate, and maintain a run-off management system capable of collecting and controlling a water volume at least equivalent to a 24-hour, 25-year storm.

(d) Collection and holding facilities, e.g., tanks or basins,

associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(e) If the treatment zone contains particulate matter which may be subject to wind dispersal, the owner or operator shall manage the unit to control wind dispersal.

20.3 WASTE ANALYSIS

In addition to the waste analyses required by R315-7-9.4, before placing a hazardous waste in or on a land treatment facility, the owner or operator shall:

(a) Determine the concentration in the waste of any substances which equal or exceed the maximum concentrations contained in Table 1 of 40 CFR 261.24, that cause a waste to exhibit the Toxicity Characteristic;

(b) For any waste listed in R315-2, determine the concentration of any substances which caused the waste to be listed as a hazardous waste; and

(c) If food chain crops are grown, determine the concentrations in the waste of each of the following constituents: arsenic, cadmium, lead, and mercury, unless the owner or operator has written documented data that show that the constituent is not present;

R315-50-9, which incorporates by reference 40 CFR 261, Appendix VII, specifies the substances for which a waste is listed as a hazardous waste. As required by R315-7-9.4, the waste analysis plan shall include analyses needed to comply with R315-7-20.8 and R315-7-20.9. As required by R315-7-12.4, the owner or operator shall place the results from each waste analysis, or the documented information, in the operating record of the facility.

20.4 FOOD CHAIN CROPS

(a) An owner or operator of a hazardous waste land treatment facility on which food chain crops are being grown, or have been grown and will be grown in the future, shall notify the Board. The growth of food chain crops at a facility which has never before been used for this purpose is a significant change in process under R315-3. Owners or operators of these land treatment facilities who propose to grow food chain crops shall comply with R315-3.

(b)(1) Food chain crops shall not be grown on the treated area of a hazardous waste land treatment facility unless the owner or operator can demonstrate, based on field testing, that any arsenic, lead, mercury, or other constituents identified under R315-7-20.3(b):

(i) Will not be transferred to the food portion of the crop by plant uptake or direct contact, and will not otherwise be ingested by food chain animals, e.g., by grazing; or

(ii) Will not occur in greater concentrations in the crops grown on the land treatment facility than in the same crops grown on untreated soils under similar conditions in the same region.

(2) The information necessary to make the demonstration required by R315-7-20.4(b)(1) shall be kept at the facility and shall, at a minimum:

(i) Be based on tests for the specific waste and application rates being used at the facility; and

(ii) Include descriptions of crop and soil characteristics, sample selection criteria, sample size determination, analytical methods and statistical procedures.

(c) Food chain crops shall not be grown on a land treatment facility receiving waste that contains cadmium unless all requirements of R315-7-20.4(c)(1)(i) through (iii) or all requirements of R315-7-20.4(c)(2)(i) through (iv) are met.

(1)(i) The pH of the waste and soil mixture is 6.5 or greater at the time of each waste application, except for waste containing cadmium at concentration of 2. mg/kg, dry weight, or less.

(ii) The annual application of cadmium from waste does not exceed 0.5 kilograms per hectare (kg/ha) on land use for production of tobacco, leafy vegetables, or root crops grown for human consumption. For other food chain crops, the annual cadmium application rate does not exceed:

TABLE

| Time Period | Annual Cd Application Rate (kg/ha) |
|---|---|
| Present to June 30, 1984 | 2.0 |
| July 1, 1984 to December 31, 1986 | 1.25 |
| Beginning January 1, 1987 | 0.5 |

(iii) The cumulative application of cadmium from waste does not exceed the levels in either paragraph (A) or (B) below:

(A)

TABLE

| | MAXIMUM CUMULATIVE APPLICATION (kg/ha) | |
|---|---|---|
| Soil cation exchange capacity (meq/100g) | Background soil pH less than 6.5 | Background soil pH greater than 6.5 |
| Less than 5 | 5 | 5 |
| 5-15 | 5 | 10 |
| Greater than 15 | 5 | 20 |

(2)(i) The only food chain crop produced is animal feed.

(ii) The pH of the waste and soil mixture is 6.5 or greater at the time of waste application or at the time the crop is planted, whichever occurs later, and this pH level is maintained whenever food chain crops are grown.

(iii) There is a facility operating plan which demonstrates how the animal feed will be distributed to preclude ingestion by humans. The facility operating plan describes the measure to be taken to safeguard against possible health hazards from cadmium entering the food chain, which may result from alternative land uses.

(iv) Future property owners are notified by a stipulation in the land record or property deed which states that the property has received waste at high cadmium application rates and that food chain crops shall not be grown, except in compliance with R315-7-20.7(c)(2).

As required by R315-7-12.4, which incorporates by reference 40 CFR 265.73, if an owner or operator grows food chain crops on his land treatment facility, he shall place the information developed in this section in the operating record of the facility.

20.5 UNSATURATED ZONE, ZONE OF AERATION, MONITORING

(a) The owner or operator shall have in writing, and shall implement, an unsaturated zone monitoring plan which is designed to:

(1) Detect the vertical migration of hazardous waste and hazardous waste constituents under the active portion of the land treatment facility; and

(2) Provide information on the background concentrations of the hazardous waste and hazardous waste constituents in similar but untreated soils nearby; this background monitoring shall be conducted before or in conjunction with the monitoring required under R315-7-20.5(a)(1).

(b) The unsaturated zone monitoring plan shall include, at a minimum:

(1) Soil monitoring using soil cores; and

(2) Soil-pore water monitoring using devices such as lysimeters.

(c) To comply with R315-7-20.5(a)(1), the owner or operator shall demonstrate in his unsaturated zone monitoring plan that:

(1) The depth at which soil and soil-pore water samples are to be taken is below the depth to which the waste is incorporated into the soil;

(2) The number of soil and soil-pore water samples to be taken is based on the variability of:

(i) The hazardous waste constituents, as identified in R315-7-20.3(a) and (b), in the waste and in the soil; and

(ii) The soil type(s); and

(3) The frequency and timing of soil and soil-pore water sampling is based on the frequency, time, and rate of waste application, proximity to groundwater, and soil permeability.

(d) The owner or operator shall keep at the facility his unsaturated zone monitoring plan, and the rationale used in developing this plan.

(e) The owner or operator shall analyze the soil and soil-pore water samples for the hazardous waste constituents that were found in the waste during the waste analysis under R315-7-20.3(a) and (b).

All data and information developed by the owner or operator under this section shall be placed in the operating record of the facility.

20.6 RECORDKEEPING

The owner or operator of a land treatment facility shall keep records of the application dates, application rates, quantities, and location of each hazardous waste placed in the facility, in the operating record required in R315-7-12.4, which incorporates by reference 40 CFR 265.73.

20.7 CLOSURE AND POST-CLOSURE CARE

(a) In the closure and post-closure plan under R315-7-14, which incorporates by reference 40 CFR 265.110 - 265.120, the owner or operator shall address the following objectives and indicate how they will be achieved:

(1) Control of the migration of hazardous waste and hazardous waste constituents from the treated area into the groundwater;

(2) Control of the release of contaminated run-off from the facility into surface water;

(3) Control of the release of airborne particulate contaminants caused by wind erosion; and

(4) Compliance with R315-7-20.4 concerning the growth of food-chain crops.

(b) The owner or operator shall consider at least the following factors in addressing the closure and post-closure care objectives of R315-7-20.7(a):

(1) Type and amount of hazardous waste and hazardous waste constituents applied to the land treatment facility;

(2) The mobility and the expected rate of migration of the hazardous waste and hazardous waste constituents;

(3) Site location, topography, and surrounding land use, with respect to the potential effects of pollutant migration, e.g., proximity to groundwater, surface water and drinking water sources;

(4) Climate, including amount, frequency, and pH of precipitation;

(5) Geological and soil profiles and surface and subsurface hydrology of the site, and soil characteristics, including cation exchange capacity, total organic carbon, and pH;

(6) Unsaturated zone monitoring information obtained under R315-7-20.5; and

(7) Type, concentration, and depth of migration of hazardous waste constituents in the soil as compared to their background concentrations.

(c) The owner or operator shall consider at least the following methods in addressing the closure and post-closure care objectives of R315-7-20.7(a):

(1) Removal of contaminated soils;

(2) Placement of a final cover, considering:

(i) Functions of the cover, e.g., infiltration control, erosion and run-off control and wind erosion control; and

(ii) Characteristics of the cover, including material, final surface contours, thickness, porosity and permeability, slope, length of run of slope, and type of vegetation on the cover; and

(3) Monitoring of groundwater.

(d) In addition to the requirements of R315-7-14 which incorporates by reference 40 CFR 265.110 - 265.120, during the closure period the owner or operator of a land treatment facility shall:

(1) Continue unsaturated zone monitoring in a manner and frequency specified in the closure plan, except that soil pore liquid monitoring may be terminated 90 days after the last application of waste to the treatment zone;

(2) Maintain the run-on control system required under R315-7-20.2(b);

(3) Maintain the run-off management system required under R315-7-20.2(c); and

(4) Control wind dispersal of particulate matter which may be subject to wind dispersal.

(e) For the purpose of complying with R315-7-14, which incorporates by reference 40 CFR 265.110 - 265.120, when closure is completed the owner or operator may submit to the

Board, certification both by the owner or operator and by an independent qualified soil scientist, in lieu of an independent registered professional engineer, that the facility has been closed in accordance with the specification in the approved closure plan.

(f) In addition to the requirement of R315-7-14, which incorporates by reference 40 CFR 265.110 - 265.120, during the post-closure care period the owner or operator of a land treatment unit shall:

(1) Continue soil-core monitoring by collecting and analyzing samples in a manner and frequency specified in the post-closure plan;

(2) Restrict access to the unit as appropriate for its post-closure use;

(3) Ensure that growth of food chain crops complies with R315-7-20.4; and

(4) Control wind dispersal of hazardous waste.

20.8 SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

The owner or operator shall not apply ignitable or reactive waste to the treatment zone unless the waste and treatment zone meet all applicable requirements of R315-13, which incorporates by reference 40 CFR 268, and:

(a) The waste is immediately incorporated into the soil so that:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under R315-2-9(d) and (f) and

(2) R315-7-9.8(b) is complied with; or

(b) That waste is managed in such a way that it is protected from any material or conditions which may cause it to ignite or react.

20.9 Special Requirements for Incompatible Wastes

Incompatible wastes, or incompatible wastes and materials, see 40 CFR 265, Appendix V for examples, shall not be placed in the same land treatment area, unless R315-7-9.8(b) is complied with.

**R315-7-21. Landfills.**

21.1 APPLICABILITY

The rules in this section apply to owners and operators of facilities that dispose of hazardous waste in landfills, except as R315-7-8.1 provides otherwise. A waste pile used as a disposal facility is a landfill and is governed by this section.

21.2 DESIGN AND OPERATING REQUIREMENTS

(a) The owner or operator of each new landfill unit on which construction commences after January 29, 1992, each lateral expansion of a landfill unit on which construction commences after July 29, 1992, and each replacement of an existing landfill unit that is to commence reuse after July 29, 1992 must install two or more liners and a leachate collection and removal system above and between such liners, and operate the leachate collection and removal systems, in accordance with R315-8-14.2(d), (e), or (f). "Construction commences" is as defined in R315-1-1(b), which incorporates by reference 40 CFR 260.10, under "existing facility".

(b) The owner or operator of each unit referred to in R315-7-21.2(a) shall notify the Executive Secretary at least 60 days prior to receiving waste. The owner or operator of each facility submitting notice shall file a part B application within six months of the receipt of the notice.

(c) The owner or operator of any replacement landfill unit is exempt from R315-7-21.2(a) if:

(1) The existing unit was constructed in compliance with the design standards of section 3004(o)(1)(A)(i) and (o)(5) of the Resource Conservation and Recovery Act; and

(2) There is no reason to believe that the liner is not functioning as designed.

(d) The double liner requirement set forth in R315-7-21.2(a) may be waived by the Board for any monofill, if:

(1) The monofill contains only hazardous wastes from foundry furnace emission controls or metal casting molding sand, and the waste does not contain constituents which would render the wastes hazardous for reasons other than the Toxicity Characteristic in R315-2-9(g), with EPA Hazardous Waste Number D004 through D017; and

(2)(i)(A) The monofill has at least one liner for which there is no evidence that the liner is leaking;

(B) The monofill is located more than one-quarter mile from an underground source of drinking water, as that term is defined in 40 CFR 144.3; and

(C) The monofill is in compliance with applicable groundwater monitoring requirements for facilities with permits; or

(ii) The owner or operator demonstrates that the monofill is located, designed and operated so as to assure that there will be no migration of any hazardous constituents into groundwater or surface water at any future time.

(e) In the case of any unit in which the liner and leachate collection system has been installed pursuant to the requirements of R315-7-21.2(a) and in good faith compliance with R315-7-21.2(a) and with guidance documents governing liners and leachate collection systems under R315-7-21.2(a), no liner or leachate collection system which is different from that which was so installed pursuant to R315-7-21.2(a) will be required for the unit by the Board when issuing the first permit to the facility, except that the Board will not be precluded from requiring installation of a new liner when the Board has reason to believe that any liner installed pursuant to the requirements of R315-7-21.10(a) is leaking.

(f) The owner or operator shall design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the landfill during peak discharge from at least a 25-year storm.

(g) The owner or operator shall design, construct, operate and maintain a run-off management system to collect and control at least the water volume resulting from a 24-hour, 25-year storm.

(h) Collection and holding facilities, e.g., tanks or basins, associated with run-on and run-off control systems shall be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.

(i) The owner or operator of a landfill containing hazardous waste which is subject to dispersal by wind shall cover or otherwise manage the landfill so that wind dispersal of the hazardous waste is controlled.

As required by R315-7-9.4, which incorporates by reference 40 CFR 265.13, the waste analysis plan shall include analysis needed to comply with R315-7-21.5 and R315-7-21.6. As

required by R315-7-12.4, which incorporates by reference 40 CFR 265.73, the owner or operator shall place the results of these analyses in the operating record.

21.3 SURVEYING AND RECORDKEEPING

The owner or operator of a landfill shall maintain the following items in the operating record required in R315-7-12.4, which incorporates by reference 40 CFR 265.73:

(a) On a map, the exact location and dimension, including depth, of each cell with respect to permanently surveyed benchmarks; and

(b) The contents of each cell and the approximate location of each hazardous waste type within each cell.

21.4 CLOSURE AND POST-CLOSURE CARE

(a) At final closure of the landfill or upon closure of any cell, the owner or operator shall cover the landfill or cell with a final cover designed and constructed to:

(1) Provide long-term minimization of migration of liquids through the closed landfill;

(2) Function with minimum maintenance;

(3) Promote drainage and minimize erosion or abrasion of the cover;

(4) Accommodate settling and subsidence so that the cover's integrity is maintained; and

(5) Have a permeability less than or equal to the permeability of any bottom liner system or natural subsoils present.

(b) After final closure, the owner or operator shall comply with all post-closure requirements contained in R315-7-14, which incorporates by reference 40 CFR 265.110 - 265.120, including maintenance and monitoring throughout the post-closure care period. The owner or operator shall:

(1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover as necessary to correct the effects of settling, subsidence, erosion, or other events.

(2) Maintain and monitor the leak detection system in accordance with R315-8-14.2(c)(3)(iv) and (4) and R315-7-21.12(b), and comply with all other applicable leak detection system requirements of R315-7;

(3) Maintain and monitor the groundwater monitoring system and comply with all other applicable requirements of R315-7-13;

(4) Prevent run-on and run-off from eroding or otherwise damaging the final cover; and

(5) Protect and maintain surveyed benchmarks used in complying with R315-7-21.3.

21.5 SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

(a) Except as provided in R315-7-21.5(b) and in 7.21.9, ignitable or reactive waste shall not be placed in a landfill, unless the waste and landfill meet all applicable requirements of R315-13, which incorporates by reference 40 CFR 268, and:

(1) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under R315-2-9(d) and (f).

(2) Section R315-7-9.8 is complied with.

(b) Except for prohibited wastes which remain subject to treatment standards in R315-13, which incorporates by reference 40 CFR 268 subpart D, ignitable wastes in containers may be landfilled without meeting the requirements of R315-7-21.5(a), provided that the wastes are disposed of in a way that they are protected from any material or conditions which may cause them to ignite. At a minimum, ignitable wastes shall be disposed of in non-leaking containers which are carefully handled and placed so as to avoid heat, sparks, rupture, or any other condition that might cause ignition of the wastes; shall be covered daily with soil or other non-combustible material to minimize the potential for ignition of the wastes; and shall not be disposed of in cells that contain or will contain other wastes which may generate heat sufficient to cause ignition of the waste.

21.6 SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

Incompatible wastes, or incompatible wastes and materials, see 40 CFR 265, Appendix V for examples, shall not be placed in the same landfill cell, unless R315-7-9.8(b) is complied with.

21.7 SPECIAL REQUIREMENTS FOR BULK AND CONTAINERIZED LIQUIDS

(a) Bulk or non-containerized liquid waste or waste containing free liquids may be placed in a landfill prior to May 8, 1985, only if;

(1) The landfill has a liner and leachate collection and removal system that meets the requirements of R315-8-14.2(a); or

(2) Before disposal, the liquid waste or waste containing free liquids is treated or stabilized chemically or physically, e.g., by mixing with a sorbent solid, so that free liquids are no longer present.

(b) Effective May 8, 1985, the placement of bulk or non-containerized liquid hazardous waste or hazardous waste containing free liquids, whether or not sorbents have been added, in any landfill is prohibited.

(c) Containers holding free liquids must not be placed in a landfill unless:

(1) All free-standing liquid

(i) has been removed by decanting, or other methods,

(ii) has been mixed with sorbent or solidified so that free-standing liquid is no longer observed; or

(iii) had been otherwise eliminated; or

(2) The container is very small, such as an ampule; or

(3) The container is designed to hold free liquids for use other than storage, such as a battery or capacitor; or

(4) The container is a lab pack as defined in R315-7-21.8 and is disposed of in accordance with R315-7-21.9.

(d) To demonstrate the absence or presence of free liquids in either a containerized or a bulk waste, the following test must be used: Method 9095, Paint Filter Liquids Test as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods." EPA Publication No. SW-846, as incorporated by reference in 40 CFR 260.11, see R315-1-2.

(e) The date of compliance with R315-7-21.7(a) is November 19, 1981. The date for compliance with R315-7-21.7(c) is March 22, 1982.

(f) Sorbents used to treat free liquids to be disposed of in landfills must be nonbiodegradable. Nonbiodegradable sorbents are: materials listed or described in R315-7-21.7(f)(1); materials that pass one of the tests in R315-7-21.7(f)(2); or materials that are determined by EPA to be nonbiodegradable through the R315-2-

16, which incorporates by reference 40 CFR 260.22, petition process.

(1) Nonbiodegradable sorbents.

(i) Inorganic minerals, other inorganic materials, and elemental carbon, e.g., aluminosilicates, clays, smectites, Fuller's earth, bentonite, calcium bentonite, montmorillonite, calcined montmorillonite, kaolinite, micas (illite), vermiculites, zeolites; calcium carbonate (organic free limestone); oxides/hydroxides, alumina, lime, silica (sand), diatomaceous earth; perlite (volcanic glass); expanded volcanic rock; volcanic ash; cement kiln dust; fly ash; rice hull ash; activated charcoal/activated carbon; or

(ii) High molecular weight synthetic polymers, e.g., polyethylene, high density polyethylene (HDPE), polypropylene, polystyrene, polyurethane, polyacrylate, polynorborene, polysobutylene, polyisobutylene, ground synthetic rubber, cross-linked allylstyrene and tertiary butyl copolymers. This does not include polymers derived from biological material or polymers specifically designed to be degradable; or

(iii) Mixtures of these nonbiodegradable materials.

(2) Tests for nonbiodegradable sorbents.

(i) The sorbent material is determined to be nonbiodegradable under ASTM Method G21-70 (1984a)-Standard Practice for Determining Resistance of Synthetic Polymer Materials to Fungi; or

(ii) The sorbent material is determined to be nonbiodegradable under ASTM Method G22-76 (1984b)-Standard Practice for Determining Resistance of Plastics to Bacteria.

(iii) The sorbent material is determined to be non-biodegradable under OECD test 301B, CO2 Evolution, Modified Sturm Test.

(g) Effective November 8, 1985, the placement of any liquid which is not a hazardous waste in a landfill is prohibited unless the owner or operator of the landfill demonstrates to the Board, or the Board determines that;

(1) The only reasonably available alternative to the placement in the landfill is placement in a landfill or unlined surface impoundment, whether or not permitted or operating under interim status, which contains, or may reasonably be anticipated to contain hazardous waste; and

(2) Placement in such owner or operator's landfill will not present a risk of contamination of any underground source of drinking water, as that term is defined in 40 CFR 144.3.

21.8 SPECIAL REQUIREMENTS FOR CONTAINERS

Unless they are very small, such as an ampule, containers must be either:

(a) At least 90 percent full when placed in the landfill; or

(b) Crushed, shredded, or similarly reduced in volume to the maximum practical extent before burial in the landfill.

21.9 DISPOSAL OF SMALL CONTAINERS OF HAZARDOUS WASTE IN OVERPACKED DRUMS, LAB PACKS

Small containers of hazardous waste in overpacked drums, lab packs may be placed in a landfill if the following requirements are met:

(a) Hazardous waste shall be packaged in non-leaking inside containers. The inside containers shall be of a design and constructed of a material that will not react dangerously with, be decomposed by, or be ignited by the waste held therein. Inside containers shall be tightly and securely sealed. The inside containers shall be of the size and type specified in the Department of Transportation (DOT) hazardous materials regulations, 49 CFR parts 173, 178, and 179, if those regulations specify particular inside container for the waste.

(b) The inside container shall be overpacked in an open head DOT specification metal shipping container, 49 CFR parts 178 and 179, of no more than 416-liter, 110 gallon, capacity and surrounded by, at a minimum, a sufficient quantity of sorbent material, determined to be nonbiodegradable in accordance with R315-7-21.7(f), to completely sorb all of the liquid contents of the inside containers. The metal outer container shall be full after it has been packed with inside containers and sorbent material.

(c) The sorbent material used shall not be capable of reacting dangerously with, being decomposed by, or being ignited by the contents of the inside containers, in accordance with R315-7-9.8(b).

(d) Incompatible wastes, as defined in R315-1 shall not be placed in the same outside container.

(e) Reactive waste, other than cyanide or sulfide-bearing waste as defined in R315-2-9(f)(v) shall be treated or rendered non-reactive prior to packaging in accordance with R315-7-21.9(a) through (d). Cyanide and sulfide-bearing reactive waste may be packaged in accordance with R315-7-21.9(a) through (d) without first being treated or rendered non-reactive.

(f) Such disposal is in compliance with the requirements of R315-13, which incorporates by reference 40 CFR 268. Persons who incinerate lab packs according to the requirements in 40 CFR 268.42(c)(1) may use fiber drums in place of metal outer containers. The fiber drums must meet the DOT specifications in 49 CFR 173.12 and be overpacked according to the requirements in R315-7-21.9(b).

21.10 ACTION LEAKAGE RATE

(a) The owner or operator of landfill units subject to R315-7-21.2(a) shall submit a proposed action leakage rate to the Executive Secretary when submitting the notice required under R315-7-21.2(b). Within 60 days of receipt of the notification, the Executive Secretary will: Establish an action leakage rate, either as proposed by the owner or operator or modified using the criteria in this section; or extend the review period for up to 30 days. If no action is taken by the Executive Secretary before the original 60 or extended 90 day review periods, the action leakage rate will be approved as proposed by the owner or operator.

(b) The Executive Secretary shall approve an action leakage rate for surface impoundment units subject to R315-7-21.2(a). The action leakage rate is the maximum design flow rate that the leak detection system, LDS, can remove without the fluid head on the bottom liner exceeding one foot. The action leakage rate shall include an adequate safety margin to allow for uncertainties in the design, e.g., slope, hydraulic conductivity, thickness of drainage material, construction, operation, and location of the LDS, waste and leachate characteristics, likelihood and amounts of other sources of liquids in the LDS, and proposed response actions, e.g., the action leakage rate shall consider decreases in the flow capacity of the system over time resulting from siltation and clogging, rib

layover and creep of synthetic components of the system, overburden pressures, etc.

(c) To determine if the action leakage rate has been exceeded, the owner or operator shall convert the weekly or monthly flow rate from the monitoring data obtained under R315-7-21.12 to an average daily flow rate, gallons per acre per day, for each sump. Unless the Executive Secretary approves a different calculation, the average daily flow rate for each sump shall be calculated weekly during the active life and closure period, and monthly during the post-closure care period when monthly monitoring is required under R315-7-21.12(b).

21.11 RESPONSE ACTIONS

(a) The owner or operator of landfill units subject to R315-7-21.2(a) shall submit a response action plan to the Executive Secretary when submitting the proposed action leakage rate under R315-7-21.10. The response action plan shall set forth the actions to be taken if the action leakage rate has been exceeded. At a minimum, the response action plan shall describe the actions specified in R315-7-21.11(b).

(b) If the flow rate into the leak detection system exceeds the action leakage rate for any sump, the owner or operator shall:

(1) Notify the Executive Secretary in writing of the exceedence within seven days of the determination;

(2) Submit a preliminary written assessment to the Executive Secretary within 14 days of the determination, as to the amount of liquids, likely sources of liquids, possible location, size, and cause of any leaks, and short-term actions taken and planned;

(3) Determine to the extent practicable the location, size, and cause of any leak;

(4) Determine whether waste receipt should cease or be curtailed, whether any waste should be removed from the unit for inspection, repairs, or controls, and whether or not the unit should be closed;

(5) Determine any other short-term and longer-term actions to be taken to mitigate or stop any leaks; and

(6) Within 30 days after the notification that the action leakage rate has been exceeded, submit to the Executive Secretary the results of the analyses specified in R315-7-21.11(b)(3)-(5), the results of actions taken, and actions planned. Monthly thereafter, as long as the flow rate in the leak detection system exceeds the action leakage rate, the owner or operator shall submit to the Executive Secretary a report summarizing the results of any remedial actions taken and actions planned.

(c) To make the leak and/or remediation determinations in R315-7-21.11(b)(3)-(5), the owner or operator shall:

(1)(i) Assess the source of liquids and amounts of liquids by source,

(ii) Conduct a fingerprint, hazardous constituent, or other analyses of the liquids in the leak detection system to identify the source of liquids and possible location of any leaks, and the hazard and mobility of the liquid; and

(iii) Assess the seriousness of any leaks in terms of potential for escaping into the environment; or

(2) Document why such assessments are not needed.

21.12 MONITORING AND INSPECTION

(a) An owner or operator required to have a leak detection system under R315-7-21.2(a) shall record the amount of liquids removed from each leak detection system sump at least once each week during the active life and closure period.

(b) After the final cover is installed, the amount of liquids removed from each leak detection system sump shall be recorded at least monthly. If the liquid level in the sump stays below the pump operating level for two consecutive months, the amount of liquids in the sumps shall be recorded at least quarterly. If the liquid level in the sump stays below the pump operating level for two consecutive quarters, the amount of liquids in the sumps shall be recorded at least semi-annually. If at any time during the post-closure care period the pump operating level is exceeded at units on quarterly or semi-annual recording schedules, the owner or operator shall return to monthly recording of amounts of liquids removed from each sump until the liquid level again stays below the pump operating level for two consecutive months.

(c) "Pump operating level" is a liquid level proposed by the owner or operator and approved by the Executive Secretary based on pump activation level, sump dimensions, and level that avoids backup into the drainage layer and minimizes head in the sump. The timing for submission and approval of the proposed "pump operating level" will be in accordance with R315-7-21.10(a).

**R315-7-22. Incinerators.**

22.1 INCINERATORS APPLICABILITY

(a) R315-7-22 applies to owners or operators of facilities that incinerate hazardous waste, except as R315-7-8.1 provides otherwise.

(b) Integration of the MACT standards.

(1) Except as provided by R315-7-22.1(b)(2), the standards of R315-7 no longer apply when an owner or operator demonstrates compliance with the maximum achievable control technology (MACT) requirements of R307-214-2, which incorporates by reference 40 CFR 63, subpart EEE, by conducting a comprehensive performance test and submitting to the Executive Secretary a Notification of Compliance under R307-214-2, which incorporates by reference 40 CFR 63.1207(j) and 63.1210(d), documenting compliance with the requirements of R307-214-2, which incorporates by reference 40 CFR 63, subpart EEE.

(2) The following requirements continue to apply even where the owner or operator has demonstrated compliance with the MACT requirements of R307-214-2, which incorporates by reference 40 CFR 63, subpart EEE: R315-7-22.5 (closure) and the applicable requirements of R315-7-8 through R315-7-15 , R315-7-27, and R315-7-30.

(c) Owners and operators of incinerators burning hazardous waste are exempt from all of the requirements of R315-7-22, except R315-7-22.5, Closure, provided that the owner or operator has documented, in writing, that the waste would not reasonably be expected to contain any of the hazardous constituents listed in R315-50-10, which incorporates by reference 40 CFR 261, Appendix VIII, and the documentation is retained at the facility, if the waste to be burned is:

(1) Listed as a hazardous waste in R315-2-10 and R315-2-11, solely because it is ignitable, Hazard Code I, corrosive, Hazard Code C, or both; or

(2) Listed as a hazardous waste in R315-2-10 and R315-2-11, solely because it is reactive, Hazard Code R, for characteristics other than those listed in R315-2-9(b), and will not be burned when other hazardous wastes are present in the combustion zone; or

(3) A hazardous waste solely because it possesses the characteristic of ignitability, corrosivity, or both, as determined by the tests for characteristics of hazardous wastes under R315-2-9, or

(4) A hazardous waste solely because it possesses the reactivity characteristics described by R315-2-9(f)(i), (ii), (iii), (vi), (vii), or (viii), and will not be burned when other hazardous wastes are present in the combustion zone.

22.2 GENERAL OPERATING REQUIREMENTS

During start-up and shut-down of an incinerator, the owner or operator shall not feed hazardous waste unless the incinerator is at steady state, normal, conditions of operation, including steady state operating temperature and air flow.

22.3 WASTE ANALYSIS

In addition to the waste analyses required by R315-7-9.4, which incorporates by reference 40 CFR 265.13, the owner or operator shall sufficiently analyze any waste which he has not previously burned in his incinerator to enable him to establish steady state, normal, operating conditions, including waste and auxiliary fuel feed and air flow, and to determine the type of pollutants which might be emitted. At a minimum, the analysis shall determine:

(a) Heating value of the waste;

(b) Halogen content and sulfur content in the waste; and

(c) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present.

As required by R315-7-12.4, which incorporates by reference 40 CFR 265.73, the owner or operator shall place the results from each waste analysis, or the documented information, in the operating record of the facility.

22.4 MONITORING AND INSPECTIONS

The owner or operator shall conduct, at a minimum, the following monitoring and inspections when incinerating hazardous waste:

(a) Existing instruments which relate to combustion and emission control shall be monitored at least every 15 minutes. Appropriate corrections to maintain steady state combustion conditions shall be made immediately either automatically or by the operator. Instruments which relate to combustion and emission control would normally include those measuring waste feed, auxiliary fuel feed, air flow, incinerator temperature, scrubber flow, scrubber pH, and relevant level controls.

(b) The complete incinerator and associated equipment, pumps, valves, conveyors, pipes, etc., shall be inspected at least daily for leaks, spills and fugitive emissions, and all emergency shutdown controls and system alarms shall be checked to assure proper operation.

22.5 CLOSURE

At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues, including but not limited to ash, scrubber waters, and scrubber sludges from the incinerator. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with R315-2-1, that any solid waste removed from his incinerator is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of these rules.

22.6 INTERIM STATUS INCINERATORS BURNING PARTICULAR HAZARDOUS WASTES

(a) Owners or operators of incinerators subject to R315-7-22 may burn EPA Hazardous Wastes F020, F021, F022, F023, F026, or F027 if they receive a certification from the Board that they can meet the performance standards of R315-8-15 when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify an incinerator:

(1) The owner of operator will submit an application to the Board containing applicable information in R315-3 demonstrating that the incinerator can meet the performance standards in R315-8-15 when they burn these wastes.

(2) The Board will issue a tentative decision as to whether the incinerator can meet the performance standards in R315-8-15. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the incinerator is located. The Board will accept comment on the tentative decision for 60 days. The Board also may hold a public hearing upon request or at their discretion.

(3) After the close of the public comment period, the Board will issue a decision whether or not to certify the incinerator.

**R315-7-23. Thermal Treatment.**

23.1 THERMAL TREATMENT

The rules in this section apply to owners or operators of facilities that thermally treat hazardous waste in devices other than enclosed devices using controlled flame combustion, except as R315-7-8.1 provides otherwise. Thermal treatment in enclosed devices using controlled flame combustion is subject to the requirements of R315-7-22 if the unit is an incinerator, and R315-14-7, which incorporates by reference 40 CFR 266, subpart H, if the unit is a boiler or an industrial furnace as defined in R315-1-1(b), which incorporates by reference 40 CFR 260.10.

23.2 GENERAL OPERATING REQUIREMENTS

Before adding hazardous waste, the owner or operator shall bring his thermal treatment process to steady state, normal, conditions of operation--including steady state operating temperature--using auxiliary fuel or other means, unless the process is a non-continuous, batch, thermal treatment process which requires a complete thermal cycle to treat a discrete quantity of hazardous waste.

23.3 WASTE ANALYSIS

In addition to the waste analyses required by R315-7-9.4, which incorporates by reference 40 CFR 265.13, the owner or operator shall sufficiently analyze any waste which he has not previously treated in his thermal treatment process to enable him to establish steady state, normal, or in other appropriate, for a non-continuous process, operating conditions, including waste and auxiliary fuel feed, and to determine the type of pollutants which might be emitted. At a minimum, the analysis shall determine:

(a) Heating value of the waste;

(b) Halogen content and sulfur content in the waste; and

(c) Concentrations in the waste of lead and mercury, unless the owner or operator has written, documented data that show that the element is not present. The owner or operator shall place the results from each waste analysis, or the documented information, in the operating record of the facility.

23.4 MONITORING AND INSPECTIONS

The owner or operator shall conduct, at a minimum, the following monitoring and inspections when thermally treating hazardous waste:

(a) Existing instruments which relate to temperature and emission control, if an emission control device is present, shall be monitored at least every 15 minutes. Appropriate corrections to maintain steady state or other appropriate thermal treatment conditions shall be made immediately either automatically or by the operator. Instruments which relate to temperature and emission control would normally include those measuring waste feed, auxiliary fuel feed, treatment process temperature, and relevant process flow and level controls.

(b) The stack plume, emissions, where present, shall be observed visually at least hourly for normal appearance, color and opacity. The operator shall immediately make any indicated operating corrections necessary to return any visible emissions to their normal appearance.

(c) The complete thermal treatment process and associated equipment, pumps, valves, conveyor, pipes, etc., shall be inspected at least daily for leaks, spills, and fugitive emissions, and all emergency shutdown controls and system alarms shall be checked to assure proper operation.

23.5 CLOSURE

At closure, the owner or operator shall remove all hazardous waste and hazardous waste residues, including, but not limited to, ash from thermal treatment process or equipment.

At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with R315-2-1, that any solid waste removed from his thermal treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of these rules.

23.6 OPEN BURNING; WASTE EXPLOSIVES

Open burning of hazardous waste is prohibited except for the open burning and detonation of waste explosives. Waste explosives include waste which has the potential to detonate and bulk military propellants which cannot safely be disposed of through other modes of treatment. Detonation is an explosion in which chemical transformation passes through the material faster than the speed of sound, 0.33 kilometers/second at sea level. Owners or operators choosing to open burn or detonate waste explosives shall do so in accordance with the following table and in a manner that does not threaten human health or the environment:

TABLE

| Pounds of Waste Explosives or Propellants | Minimum Distance from Open Burning or Detonation to the Property of Others |
|---|---|
| 0 - 100 | 204 meters (670 feet) |
| 101 - 1,000 | 380 meters (1,250 feet) |
| 1,001 - 10,000 | 530 meters (1,730 feet) |
| 10,001 - 30,000 | 690 meters (2,260 feet) |

23.7 INTERIM STATUS THERMAL TREATMENT DEVICES BURNING PARTICULAR HAZARDOUS WASTE

(a) Owners or operators of thermal treatment devices subject to R315-23 may burn EPA Hazardous Wastes F020, F021, F022, F023, F026, or F027 if they receive a certification from the Board that they can meet the performance standards of R315-8-15 when they burn these wastes.

(b) The following standards and procedures will be used in determining whether to certify a thermal treatment unit:

(1) The owner or operator will submit an application to the Board containing the applicable information in R315-3 demonstrating that the thermal treatment unit can meet the performance standard in R315-8-15 when they burn these wastes.

(2) The Board will issue a tentative decision as to whether the thermal treatment unit can meet the performance standards in R315-8-15. Notification of this tentative decision will be provided by newspaper advertisement and radio broadcast in the jurisdiction where the thermal treatment device is located. The Board will accept comment on the tentative decision for 60 days. The Board also may hold a public hearing upon request or at their discretion.

(3) After the close of the public comment period, the Board will issue a decision whether or not to certify the thermal treatment unit.

**R315-7-24. Chemical, Physical, and Biological Treatment.**

24.1 APPLICABILITY

The rules in this section apply to owners and operators of facilities which treat hazardous wastes by chemical, physical, or biological methods in other than tanks, surface impoundments, and land treatment facilities, except as R315-7-8.1 provides otherwise. Chemical, physical, and biological treatment of hazardous waste in tanks, surface impoundments, and land treatment facilities shall be conducted in accordance with R315-7-17, which incorporates by reference 40 CFR 265.190 - 265.201, R315-7-18, and R315-7-20, respectively.

24.2 GENERAL OPERATING REQUIREMENTS

(a) Chemical, physical, or biological treatment of hazardous waste shall comply with R315-7-9.8(b).

(b) Hazardous wastes or treatment reagents shall not be placed in the treatment process or equipment if they could cause the treatment process to rupture, leak, corrode, or otherwise fail before the end of its intended life.

(c) Where hazardous waste is continuously fed into a treatment process or equipment, the process or equipment shall be equipped with a means to stop this inflow, e.g., a waste feed cut-off system or bypass system to a standby containment device. These systems are intended to be used in the event of a malfunction in the treatment process or equipment.

24.3 WASTE ANALYSIS AND TRIAL TESTS

(a) In addition to the waste analysis required by R315-7-9.4, which incorporates by reference 40 CFR 265.13, whenever:

(1) A hazardous waste which is substantially different from waste previously treated in a treatment process or equipment at the facility is to be treated in that process or equipment, or

(2) A substantially different process than any previously used at the facility is to be used to chemically treat hazardous waste;

The owner or operator shall, before treating the different waste or using the different process or equipment:

(i) Conduct waste analyses and trial treatment tests, e.g., bench scale or pilot plant scale tests; or

(ii) Obtain written, documented information on similar treatment of similar waste under similar operating conditions; to show that this proposed treatment will meet all applicable requirements of R315-7-24.2(a) and (b).

The owner or operator shall place the results from each waste analysis and trial test, or the documented information, in the operating record of the facility.

24.4 INSPECTIONS

The owner or operator of a treatment facility shall inspect, where present:

(a) Discharge control and safety equipment, e.g., waste feed cut-off systems, bypass systems, drainage systems, and pressure relief systems, at least once each operating day, to ensure that it is in good working order;

(b) Data gathered from monitoring equipment, e.g., pressure and temperature gauges, at least once each operating day, to ensure that the treatment process or equipment is being operated according to its design.

(c) The construction materials of the treatment process or equipment, at least weekly, to detect corrosion or leaking of fixtures or seams, and

(d) The construction materials of, and the area immediately surrounding, discharge confinement structures, e.g., dikes, at least weekly, to detect erosion or obvious signs of leakage, e.g., wet spots or dead vegetation.

24.5 CLOSURE

At closure, all hazardous waste and hazardous waste residues shall be removed from treatment processes or equipment, discharge control equipment, and discharge confinement structures. At closure, as throughout the operating period, unless the owner or operator can demonstrate, in accordance with R315-2-1, that any solid waste removed from his treatment process or equipment is not a hazardous waste, the owner or operator becomes a generator of hazardous waste and shall manage it in accordance with all applicable requirements of these rules.

24.6 SPECIAL REQUIREMENTS FOR IGNITABLE OR REACTIVE WASTE

(a) Ignitable or reactive waste shall not be placed in a treatment process or equipment unless:

(1) The waste is treated, rendered, or mixed before or immediately after placement in the treatment process or equipment so that;

(i) The resulting waste, mixture, or dissolution of material no longer meets the definition of ignitable or reactive waste under R315-2-9(d) and (f), and

(ii) R315-7-9.8(b) is complied with; or

(2) The waste is treated in such a way that it is protected from any material or conditions which may cause the waste to ignite or react.

24.7 SPECIAL REQUIREMENTS FOR INCOMPATIBLE WASTES

(a) Incompatible wastes, or incompatible wastes and materials, see 40 CFR 265, Appendix V for examples, shall not be placed in the same treatment process or equipment, unless R315-7-9.8(b) is complied with.

(b) Hazardous waste shall not be placed in unwashed treatment equipment which previously held an incompatible waste or material, unless R315-7-9.8(b) is complied with.

**R315-7-25. Underground Injection.**

25.1 APPLICABILITY

Except as R315-7-8.1 provides otherwise:

(a) The owner or operator of a facility which disposes of hazardous waste by underground injection is excluded from the requirements of R315-7-14, which incorporates by reference 40 CFR 265.110 - 265.120 and R315-7-15, which incorporates by reference 40 CFR 265.140 - 265.150.

(b) The requirements of this section apply to owners and operators of wells used to dispose of hazardous waste which are classified as Class I under 40 CFR 144.6(a) and which are classified as Class IV under 40 CFR 144.6(d).

**R315-7-26. Air Emission Standards for Process Vents.**

The requirements of 40 CFR subpart AA sections 265.1030 through 265.1035, 1997 ed., as amended by 62 FR 64636, December 8, 1997, are adopted and incorporated by reference with the following exception:

(1) substitute "Board" for all federal regulation references made to "Regional Administrator."

**R315-7-27. Air Emission Standards for Equipment Leaks.**

The requirements of 40 CFR subpart BB sections 265.1050 through 265.1064, 1997 ed., as amended by 62 FR 64636, December 8, 1997, are adopted and incorporated by reference with the following exception:

(1) substitute "Board" for all federal regulation references made to "Regional Administrator."

**R315-7-28. Drip Pads.**

The requirements of 40 CFR subpart W sections 265.440 through 265.445, 1996 ed., are adopted and incorporated by reference with the following exception:

(1) substitute "Board" for all federal regulation references made to "Regional Administrator".

(2) Add, following December 6, 1990, in 40 CFR 264.570(a), "for all HSWA drip pads or January 31, 1992 for all non-HSWA drip pads."

(3) Add, following December 24, 1992, in 40 CFR 570(a), "for all HSWA drip pads or July 30, 1993 for all non-HSWA drip pads."

**R315-7-29. Containment Buildings.**

The requirements of subpart DD sections 265.1100 through 265.1102, as found in 57 FR 37194, August 18, 1992, are adopted and incorporated by reference with the following exception:

(1) substitute "Executive Secretary" for all federal regulation references made to "Regional Administrator."

**R315-7-30. Air Emission Standards for Tanks, Surface Impoundments, and Containers.**

The requirements as found in 40 CFR subpart CC, sections 265.1080 through 265.1091, 1998 ed., as amended by as amended by 64 FR 3382, January 21, 1999, are adopted and incorporated by reference with the following exception:

(1) substitute "Executive Secretary" for all federal regulation references made to "Regional Administrator."

**KEY: hazardous waste**

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